High speed precision
Modern arable farming is characterised by the growth in unit sizes of successful businesses. As a result, the need has arisen for high capacity seed drills that offer flexibility without compromise to the precision of seed placement.

A modern cultivator drill must be able to work in minimum-tillage and conventional crop establishment systems. High daily output will be achieved, via a high forward speed in work, a large tank size, and simple and efficient road transport.

Crop establishment will only be optimised if the seed drill can effectively perform the operations listed below. This is particularly important in situations of high volumes of crop residue are on the surface:

- Cultivation tools mix the crop residue uniformly with the soil and level the seed bed without risk of blockage.
- Seed coulters place seed precisely at the required seed depth, in plough-based and min-till situations.
- Seed press wheel firms soil around the placed seed, particularly in dry conditions.
- The working speeds for soil cultivation tools and seeding coulters are ideally matched to each other, to ensure perfect seed bed preparation as well as smooth operation of seed coulters.
Compact-Solitair
Versatile tool combination

Reliable levelling

The hydraulically-adjustable levelling tines, or track levelling discs (1) as accessories, provide reliable levelling of all wheel tracks and are highly recommended for use on ploughed areas.

Optimum seed bed preparation

Integrated tool units such as the Heliodor compact disc harrow or the Zirkon power harrow (2) enable ideal adaptation to every soil condition while also matching cultivation intensity to field requirement.
The fertiliser coulter bar available for HD models (3) is located in front of the tyre packer roller. Fertiliser is precisely placed at the desired depth between two rows of seeds via the double disc coulters with up to 150 kg share pressure.

Along with its transport function, the tyre packer roller (4) also provides ideal reconsolidation of the seed bed. Additional consolidation aligned with the seed rows can be provided by the optional trapeze packer roller (5).

The maintenance-free OptiDisc double disc coulter with trailing depth guide roller (5), guarantees accurate seed sowing with uniform depth while also creating the best requirements for high crop yields.
Compact-Solitair H/HD
Seeding at high speed

The Compact-Solitair H/HD is equipped with the LEMKEN Heliodor compact disc harrow’s tool section.

- The Heliodor consists of two rows of wear-resistant, notched concave discs with 465 mm diameter and 5 mm thickness, which are individually attached to ensure they match the soil profile perfectly.

- The angle of the discs, in relation to direction of travel and the vertical, serves to ensure both an excellent and uniform mixing process.

The Compact-Solitair HD sets new benchmarks in simultaneous drilling and fertilisation. Drill combinations allowing precise fertiliser placement can produce considerable increases in yields, especially with summer cereals and in regions with short vegetation periods.

- The variably divided hopper holds both seeds and fertiliser.

- Both fertiliser and seeds are metered out via separate, Solitronic-controlled metering devices.

- Modern depot fertilisers such as CULTAN require seeds and fertiliser to be applied at the same time to ensure precise application rates.

The positioning of the tools and the placement of the fertiliser between two rows of seeds ensure that all plants are optimally supplied with fertiliser and prevent fertiliser burn in roots. As a result, ideal conditions are established for rapid plant growth.
Each disc is individually fastened to the frame with a leaf spring.

- The leaf springs serve to provide a significantly greater degree of disc lane stability than the otherwise frequently used rubber buffer elements. At the same time the leaf springs also act as an automatic overload protection.

- Maintenance-free high-quality axial angular-contact ball bearings reliably absorb all loads exerted on the discs.

- To guarantee correct and permanent disc function, the bearings are further protected by a sealing ring. The special shape of the bearing housing on the disc carrier acts as an additional cover.

The outer discs on the working section can be individually adjusted to avoid formation of a ridge or furrow where one drilling pass meets the next.

- Additionally available edge limiters make sure that the flow of soil on light to medium soils remains within the area being cultivated.

- On the rigid versions of the Compact-Solitair drill, the outer discs can be folded in for transport. This ensures a 3m machine is less than 3m wide during road transport.

The fertiliser coulter bar is located in front of the tyre packer roller. Fertiliser is precisely deposited to the desired depth between two rows of seeds via the double disc coulters (400 mm Ø) at a coulter pressure of up to 150 kg.

- The fertiliser depth can be finely adjusted via pins.

- The individual fertiliser coulters feature automatic overload protection as a standard for use in stony soils.

- When seeding without under-root fertilisation, the hydraulically adjustable fertiliser bar is raised out of work to protect the fertiliser coulters against wear.
Compact-Solitair Z and Compact-Solitair KK: Finely tuned cultivation intensity

Soil cultivation with a power harrow

The 3, 4 or 6 metre-wide Compact-Solitair drill combination can be equipped with a Zirkon power harrow for effective seeding even under extremely challenging conditions.

- The power harrow shows its full strengths in both conventional and conservation tillage.
- Active soil cultivation for a wide range of applications in easy to difficult soil conditions.
- Power harrows offer advantages in variable soil conditions.
DUAL shift manual transmission with reversible direction of rotation

This allows optimum seedbeds to be prepared in virtually any soil conditions, particularly heavy and strongly varying soils.

The working parameters of the LEMKEN Zirkon power harrow can be flexibly adjusted to ensure optimum seedbed preparation.

- Whether seedbeds are to be prepared rapidly and extensively at shallow depths or more deeply and intensively: working parameters such as working depth, rotor speed, tine position and forward travel speed can be individually adjusted to ensure optimum soil cultivation.

For sustainable increases in acreage performance

Perfect levelling

The depth of the rotary harrow is adjusted mechanically or optionally hydraulically with continuous variability.

- Hydraulic lift of the power harrow via parallelogram

- Wheelmark eradicators and lateral feed discs can be used to level surfaces in front of the power harrow
Perfect adaptation to any soil conditions

For the folding Compact-Solitair, a soil cultivation, tyre packer and seeder unit section is suspended on a centrally-positioned swinging axle.

- This enables ideal soil adaptation to be achieved, and uniform pressure distribution maintained, even with large working widths.

The Compact-Solitair from LEMKEN with a diameter of 1,064 mm has the largest tyre packer roller in this machine category. This in turn means that the entire seed base can be uniformly reconsolidated.

- The tyres 420/65 R 20 enable the air pressure to be reduced to only 0.8 bar at full load.

- In addition to this, the offset arrangement of the individual wheels results in an improved self-cleaning process while also ensuring excellent seeding even in wet conditions.

- The tyre width is selected such that either three or four seeding coulters can be arranged behind each tyre, depending whether 16.7 or 12.5cm rows are specified.

The additional harrow between the tyre packer roller and the seeding coulters enables the seed bed to be ideally levelled.

- The harrow can be easily adjusted in depth and angle to ensure that it always operates using the best degree of intensity.

- The additional flat bar helps to improve the levelling yet further.

Perfect soil adaptation

Large tyre packer roller

Harrow for levelling
A trapeze packer roller can be added to the Compact-Solitair to obtain defined pre-consolidation of rows directly in front of the OptiDisc double disc coulters.

- The trapeze packer roller improves both the smooth operation of the seeding coulters and the soil contact of seeds.
- The trapeze packer roller is available for row distances of 12.5 and 16.7 cm; as the tyre packer roller in front of the trapeze packer roller features large tyres, it has a minimal effect on draft requirement.

- However, the additional roller considerably increases the contact surface and thus extends the utilisation period of the implement, especially in wet conditions in autumn.
- The optional roller pressure control system optimises the pressure that is applied to the trapeze packer roller. This makes operation considerably easier for the driver, as the roller pressure is automatically adjusted when surface conditions change, ensuring disruption-free work. The pressure control system thus creates an even soil structure and at the same time minimises traction force requirements of the drill combination.

The machine weight can be distributed and varied between tyre packer roller and trapezoidal packing roller according to conditions.

- The configured pressure distribution is also retained on undulating terrain and thereby achieves ideal reconsolidation.
- The targeted pressure distribution can be hydraulically configured and adjusted through the Solitronic control system.
The calibration tray protects the individual feeder units against dirt when working. Thanks to its excellent accessibility it can be quickly and easily removed from its holder and slid into the calibration position.

- This prepares the machine quickly for the calibration sample.
- The calibration process is conducted through the Solitronic electronic control system.
- The LEMKEN standard delivery package includes digital scales in a practical aluminium case. This in turn means that accurate seed rate is guaranteed.

The large tank can be easily reached via a generously-sized platform. The extendable ladder and the platform are made of antislip material.

- The large plastic lid of the seed tank can be easily opened and it reliably protects the seed against moisture.
- When filling with a telescopic or front loader, overhead loading work conveyor, or Big Bag, the opened lid acts as a baffle.
- The large tanks with a capacity of 3,500 litres for the rigid machines, and 4,500 litres for the folding models, maximise daily output.

For the seeding of the various seeds, the six-piece cell wheels can easily be set, using the tool set included, to seeding quantities of 1.5 to 300 kg per hectare.

- The combination of electrical drive and engageable cell wheels ensures that the sowing shaft always turns at optimum speed when seeding.
- This combination of speed and volume adaptation per sowing shaft revolution serves to guarantee a significantly enhanced longitudinal distribution of seed along the row.
- The Compact-Solitair has two to four feeder units to match the working width. The feeder units can be electrically actuated using the Solitronic electronic control system and (as an option) they can be hydraulically activated/deactivated on a section width basis.
Control and headland management

The electronic Solitronic control system is responsible for all control and monitoring functions on the Compact-Solitair seed drill.

- The clearly arranged LVT 50 display shows graphically created menus with a simple user interface. The hectare readings per field, day and year are determined and stored electronically.
- All tramline variants can be managed using the on-board computer.
- The control system for the seeding shafts, general headland management, the coulter pressure setting, and the section-width switch off (option), are core functions in the Solitronic control system.
- Headland management is activated by one double acting spool valve which raises the soil cultivation tools, coulter bar and bout markers in the pre-selected order. The operating effort for the driver at the headland is thereby reduced to a single operation.
- In the ISOBUS version, the Compact-Solitair can be operated from the CCI-1200 terminal.
- This allows tramlines to be created freely in the field via GPS using Tramline Control.
- HeadlandCommand substantially simplifies implement control at the headlands and controls implement lifting and lowering to prevent both gaps and double passes.
- CCI.Control allows fertiliser and seeds to be applied variably to specific width sections in order to save resources and increase yields.
Blockage-free seed placement

The seed distributors are located outside the seed tank directly above the coulter bar.

- For the purpose of uniform seed distribution the coulter hoses from the distributor to the coulter are as short as possible and all the same length.

- The continuous drop in the sowing hoses prevents blockages.

- The distributor can be easily opened for inspection purposes. The emptying hose included, enables residual quantities to be removed quickly from the seed tank by way of the seed distributor.

The Compact-Solitair is equipped with the latest maintenance-free double disc coulters OptiDisc or OptiDisc M. They operate efficiently on ploughed land, or in mulch sowing. Seed is always placed at a uniform depth because each seeding coulter is guided by a rubber-tyred depth wheel.

- With the OptiDisc, the hydraulically generated coulter pressure of up to 70 kg ensures that a constant seeding depth is maintained even under difficult conditions.

- The depth of the double disc coulters remains ideal even at high forward speeds.

- With the OptiDisc M, up to 45 kg pressure are mechanically applied to the seeding coulter. The coulter pressure is easily adjusted via a lever system.

- Pressing in the seed using the depth guide wheel as a pressure roller ensures perfect soil consolidation with optimum water channelling and uniform rooting. This results in swift, uniform seed germination.
Individually switching feeder units on/off

Each feeder unit can be separately switched on and off. This function can be operated from the tractor seat using the Solitronic electronic control system (option).

• This allows half width shut off if required for tramlines, and avoidance of large overlaps at headlands.

Tramline system

The Compact-Solitair can be equipped with up to 2 x 4 seeding hoses with TramlineControls for the creation of tramlines.

• When creating tramlines the excess seed is returned to the seed tank through large hoses.

• Automatic swivelling of the tramline flap ensures that the air pressure in the system remains constant. This in turn guarantees uniform distribution of the seed even when the tramline is switched off.
Versatile utilisation

**Bout markers with shearbolt protection**

The hydraulic bout markers are mounted well forward and therefore always in the driver’s field of vision.

- Shearbolts help to avoid any serious damage should an obstacle be overlooked.
- The Solitronic electronic control system with integrated headland management controls the changeover of bout markers at the headland.
- The Solitronic control system can be used to decide at the start of a field whether the right or the left marker or whether both markers should be used to start off with.
- The disc angle can be easily adjusted to increase or decrease the size of the mark left in the soil.

**Spring-mounted levelling tines**

If the Compact-Solitair is to be used on ploughed land, it is advisable to use hydraulically adjustable levelling tines.

- They reliably level all wheel tracks and plough furrows and, when not required, can be raised up from the driver seat using a double acting control unit.
- For easier adaptation to light or heavy soil, the tines’ wear plates can be set to grip or drag position.

**Wheelmark eradicator discs**

The use of tools is recommended for eradicating wheelmarks on light and loose soils. The wheelmark eradicator discs available for all folding Compact-Solitair models reliably eradicate any wheelmarks.

- The discs can be optimally adjusted to the tyre width and penetration depth.
- Solitronic with integrated headland management takes care of the raising and lowering processes at the headland.
- Wheelmark eradicator discs are considerably less prone to blockages compared to tine tools, especially in situations with ample harvest residue.
Precision seeding with the Compact-Solitair

The Compact-Solitair can be combined with the Azurit single-seed drill for precision seeding. This allows seedbed preparation, seeding and row fertilisation to be performed in just one pass.

- Previously, most farmers used a rotary harrow in combination with precision seeding technology.
- The LEMKEN Azurit can even be easily used with the Heliodor at high working speeds.

Versatile applications

The extended range of applications of this drill combination in both cereal and precision seeding ensures that it can be optimally utilised.

- A standardised three-point interface in the folding Compact-Solitair permits rapid changes between a coulter bar and the Azurit.
- In the rigid version, this function is taken over by an optional coupling frame.

Large fertiliser hopper

The generously dimensioned seed hopper in the Compact-Solitair serves as fertiliser tank when using the implement for precision seeding.

- The maize pack also comprises a metering system that is suitable for fertiliser and an additional hydraulic supply for the single-seed drill.
- An additional harrow at the coupling frame provides for optimum levelling behind the tyre packer.

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## Technical data

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<th>Model</th>
<th>Working width (cm)</th>
<th>KW HP</th>
<th>Discs (Number)</th>
<th>Number of rows Seeding coulter/ fertiliser coulter</th>
<th>Row spacing Seeding coulter (mm)</th>
<th>Row spacing Fertiliser coulter (mm)</th>
<th>Kerb weight (kg)</th>
<th>Tank capacity (Litres)</th>
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A PART OF US

LEMKEN wearing parts are designed for a maximum service life. High-quality materials, 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.

Service decides

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 40 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.

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.

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