Drill Combination
Compact-Solitair
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.
As you sow, so shall you reap
LEMKEN has put its wealth of experience of pneumatic drill technology into the development of the Compact-Solitair drill combination. The double disc and press wheel technology, developed over many years, is now available on Compact-Solitair. This system offers distinct advantages to seed placement in the soil:

- The choice of discs or power harrow cultivation section ensures Compact-Solitair can be tailored precisely to your needs.

- On the Heliodor compact disc harrow the notched concave discs mounted to the leaf springs guarantee intensive mixing coupled with uniform leveling. They are not susceptible to stone damage.

- Soil cultivation using the Zirkon power harrow can be adjusted in terms of intensity to suit the requirements.

- The Compact-Solitair HD enables you to simultaneously apply solid mineral fertiliser between the rows of seed.

- The tyre packer roller with offset wheels of 1,097 mm diameter and A5 tyre tread, help to ensure excellent reconsolidation of the soil while also significantly reducing the draft requirement.

- The trapeze packer roller, located directly behind the tyre packer, firms the soil directly in line with the seed rows.

- The new, stable and maintenance-free OptiDisc double disc coulter, with depth guide roller, applies up to 70 kilograms of coulter pressure to each coulter unit.

- The seed tank has a capacity of almost 4,500 litres ensuring long work periods between seed fills.

- LEMKEN Solitronic provides comfort and convenience, with the integrated headland management system reducing operator workload at the headland.

The LEMKEN Compact-Solitair product range includes both rigid versions with three and four metre working widths, as well as folding drill combinations with a six metre working width.
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.

Compact-Solitair
Versatile tool combination
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.

Along with its transport function, the tyre packer roller (3) also provides ideal reconsolidation of the seed bed.

Additional consolidation aligned with the seed rows can be provided by the optional trapeze packer roller (4).

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.
The Compact-Solitair H 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.

- For intensive cultivation at high drilling speed, the Heliodor concave discs are mounted in two rows offset to each other with a line spacing of 125 mm.
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.

For cultivation of changing soils or undulating ground the LEMKEN Compact-Solitair is equipped as standard with hydraulic depth adjustment of the concave discs.

- This means the working depth can be easily adjusted during work.

- The easily visible scale clearly displays the setting at any given time for the working depth.

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.

Efficient mounting of concave discs

Simple working depth adjustment

Height-adjustable concave discs
Compact-Solitair KK
Intensive cultivation module
For effective sowing even under the most demanding of conditions, the six metre wide Compact-Solitair drill combination can also be equipped with the Zirkon 10 power harrow.

- The advantages of the power harrow can be fully utilised, both in conventional and in conservation cultivation procedures.

The working intensity for the Zirkon 10 power harrow from LEMKEN can be adjusted to ensure optimum seed bed preparation.

- Whether shallow, fast and extensive, or deep and intensive – the working parameters such as working depth, rotor speed, tine angle and forward drive speed can be individually adjusted to achieve the best-possible soil cultivation.

- This means that an optimum seed bed can be prepared on practically all soils, particularly heavy soils, and on significantly varying soil conditions, in a single pass.

In the LEMKEN Compact-Solitair, the working depth of the power harrow is maintained by the tyre packer roller.

- The exact working depth can be set using plug-on clips on the hydraulic cylinders.

- A reduced working depth can be chosen at any time using the tractor’s control unit.

The power harrow for maximum cultivation intensity in all cultivation procedures

For a sustainable boost to area coverage

Exact depth guidance
Agricultural enterprises that focus on spring drilling, due to harsh winters and short growing periods, require seeding technology that maximises the crop’s potential.

- This is where a simultaneous fertiliser placement, between the seed rows, will ensure the young plants are quickly and ideally supplied with their nutritional needs.

- Even state-of-the-art types of fertiliser, such as CULTAN, offer an increased agronomic advantage when placed directly beside the seed.

- The Compact-Solitair HD drill combination sets the standards in simultaneous drilling and fertilising through its achievement of the best possible placement of seedbed fertiliser.
Tanks with 3,500 litre volumes are available for holding seed and fertiliser.

- This tank volume can be varied between 60 and 40 per cent to hold seed and fertiliser to match requirements.

- When seeding without fertiliser, the entire tank can be used for seed.

The fertiliser is metered out, similarly to the seed, through separate feeder units managed and controlled by the Solitronic.

- Two or four feeder units with four cell wheels, that can be separately activated, are used to reliably metre out a fertiliser quantity of up to 400 kg/ha.

- The fertiliser is transported pneumatically to the coulters.

- The fertiliser distributors are located directly above the fertiliser coulter bar and they can be opened quickly and easily for inspection purposes.

- The individual fertiliser coulters are equipped as standard with an overload protection for use on stony soil conditions.

- When seeding without fertiliser the hydraulically-adjustable fertiliser bar remains in the raised position. This avoids unnecessary wear to the fertiliser coulters.
For a defined pre-consolidation ahead of the OptiDisc double disc coulters, the Compact-Solitair can be equipped with an additional trapeze packer roller.

- The trapeze packer roller firms the soil directly in line with the seed rows benefitting seed germination, and assisting soil flow.
- The trapeze packer roller is available for row spacing of 12.5 and 16.7 cm and, due to the large tyre size of the tyre packer roller ahead of it, only slightly increases the towing-force requirement.
- By contrast, the distinctly larger contact area caused by the additional roller significantly increases the service period particularly in wet autumn conditions.
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.

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 1,097 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 (option) 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 12.5 cm rows are specified.
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.

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.

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.

Accurate metering always

Easy access to seed tank

Segmented metering for precise seed spacing

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

• The clearly arranged LGT 570 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.
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. 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.

- The hydraulically controlled coulter pressure, of up to 70 kilograms per seeding coulter, and seeding depth can be adjusted independently of each other.
- The depth of the double disc coulters remains ideal even at high forward speeds.
- 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.
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.

The Compact-Solitair can be equipped with up to 2 x 4 seeding hoses with tramline controls 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

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.

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.

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.
The Compact-Solitair - preferably in combination with the Zirkon power harrow - is ideally suited for maize seeding, when fitted with an eight-row maize drill. This in turn means that seed bed preparation, maize planting, and row fertilising can all be performed in a single operation.

- The standardised three-point linkage on the folding Compact-Solitair enables a fast change to be made between seed coulter bar and a maize seed drill.

- The seed tank on the Compact-Solitair is used as a fertiliser tank when planting maize.

- The ability to use the Compact-Solitair to drill grain or maize, in this way, adds to the overall efficiency of the machine.

All Compact-Solitairs 9 KH and 9 KK with a working width of more than 3 metres can be easily and quickly hydraulically folded to a transport width of less than 3 metres.

- This means that a Compact-Solitair can be quickly moved from field to field.

- For the brake system, LEMKEN offers either a hydraulic or a dual-line pneumatic brake system option for the Compact-Solitair.

- Ideal ride comfort is guaranteed by the large tyres - even at high speeds and with a seed tank filled to the brim.
### Technical data

<table>
<thead>
<tr>
<th>Model</th>
<th>Working width (cm)</th>
<th>HP/KW</th>
<th>Discs (Number)</th>
<th>Number of rows</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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¹ for a row spacing of 167 mm

All statements, measurements and weights given represent standards subject to continuous further development and are therefore not binding. The weights given always refer to standard equipped implements. We reserve the right to change specifications.
When you have bought a machine from LEMKEN, the well-known, almost proverbial LEMKEN service starts. 17 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.

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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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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.
As professional crop production specialists, LEMKEN is one of the leading companies in Europe, with over 1,100 employees worldwide, achieving sales revenues of more than EUR 270 m. Originally founded in 1780 as a blacksmith’s forge, the family company produces high-quality and high-performance farm machinery for soil cultivation, sowing and plant protection at its German headquarters in Alpen and at its two other production sites in Föhren/Trier and Meppen. 65 percent of the approximately 14,000 machines per year are exported.