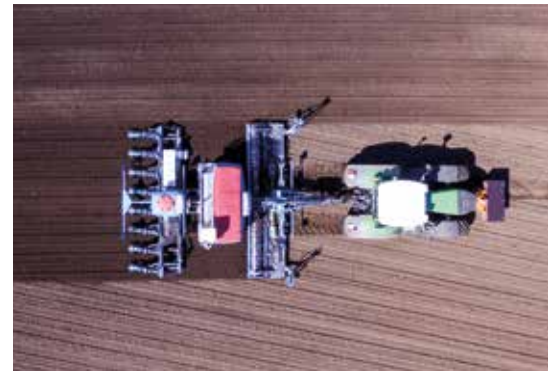


PRECISION DRILL
AZURIT 9





Pioneering single-seed drills



LEMKEN, an innovative manufacturer of sowing technology, has recently entered the single-seed drilling segment with its DeltaRow technology – an innovative approach to single-seed drilling. DeltaRow is essentially about maximising the surface area that is

available to plants on the field, as it provides improved access to light, air and nutrients for increased yields.

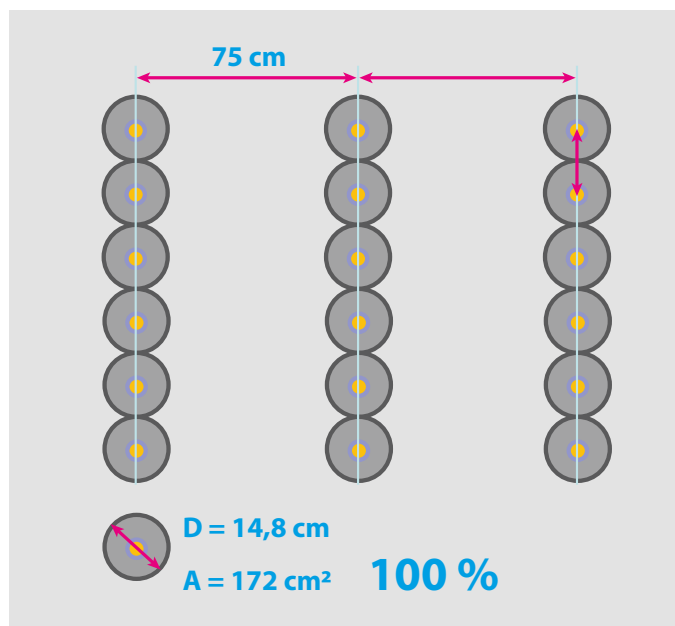
The Azurit 9 single-seed drill is available with 4, 6 or 8 rows and 75 cm distance between rows.

An optimal tool sequence is another prerequisite for success. Plant growth is enhanced by central under-root fertilisation within the DeltaRow. Fertiliser is deposited underneath seed rows by a double disc coulters. Seed rows are then preconsolidated by trapeze packer segments before seeds are placed in the soil by proven LEMKEN double disc coulters technology.

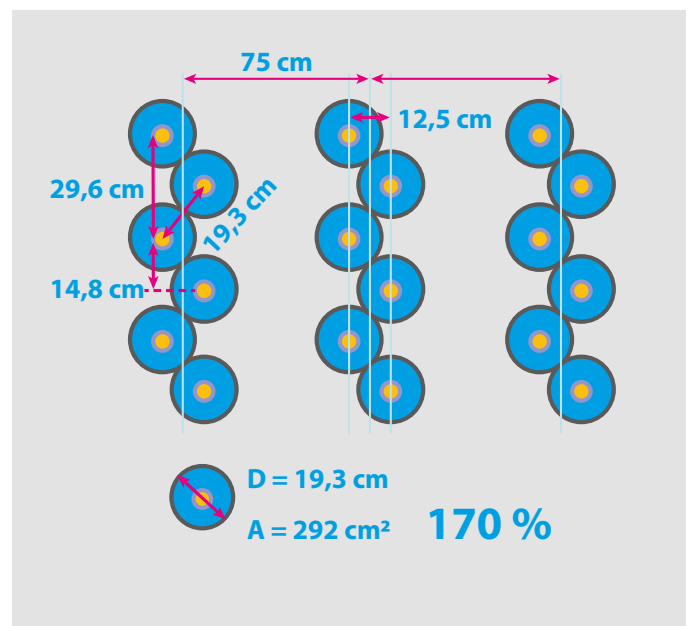
Apart from this innovative technology, the Azurit also offers exceptional strengths through flexible combination options: it can be used directly via a 3-point linkage in combination with a front hopper or as a trailed implement together with the Solitair 25 KA or Compact-Solitair 9. There is a suitable implement concept for any conditions.

The use of farmyard manure is a very topical and important issue, particularly in regions with high livestock production. The Azurit is also available with a tramline mechanism, which is an essential prerequisite for spreading farmyard manure optimally on crops using tyres that help preserve the soil. The desired stocking density is maintained even with tramlines.

The concept: LEMKEN DeltaRow



Single row



DeltaRow

A DeltaRow consists of staggered twin sub-rows that are spaced 12.5 cm apart. As the sub-rows are created synchronously, seeds are placed reliably in a triangular array.

- Compared to single row technology, DeltaRow offers a 70% improvement in the area available to plants for growth, resulting in more water, nutrients and light for crops.
- A fertiliser band is placed in the sub-root area inside the DeltaRow. This allows the seeding unit to be designed symmetrically.
- The technology offers a clear advantage on erosion-prone fields, as better root systems are established in the soil compared to single rows.





Nutrients, water, light

DeltaRow delivers optimal distribution for each plant.

- Optimal utilisation of under-root fertiliser
- More nutrients, water and light for each plant
- Rapid soil cover during juvenile development
- Plant spacing helps prevent erosion
- Greater weed suppression capacity in juvenile development
- Better root growth and biomass development



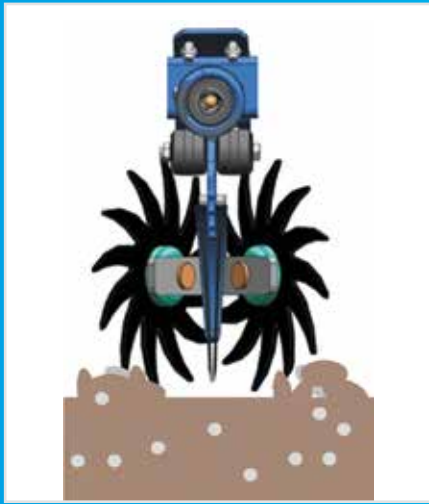
Harvest

Crops can be harvested using conventional technology.

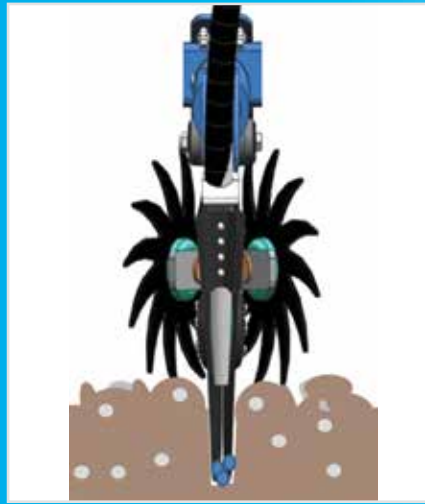
- Both forage and combine harvesters can be used for easy harvesting.
- This applies to both harvester headers that require a certain row spacing and those that work independently of row spacing.



Process steps with the Azurit



Residue wheels remove rocks, clumps and harvest residue from seed furrows. Their height can be adjusted quickly via a hole matrix, or alternatively they can be easily removed altogether as required.

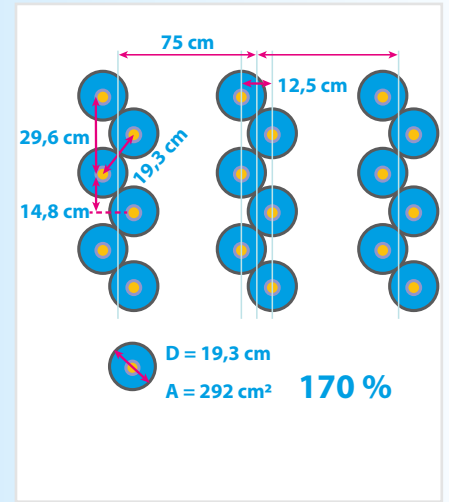
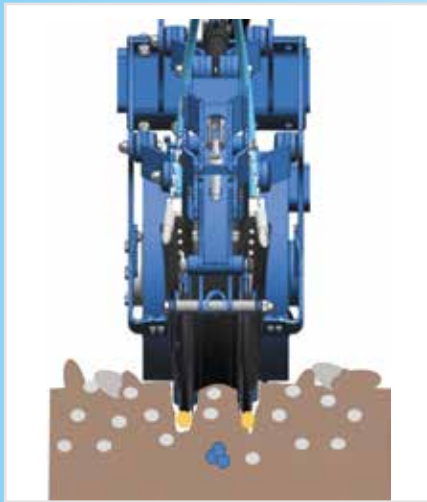


The fertiliser coulters (up to 250 kg coulters pressure) deposits the fertiliser band centrally underneath the DeltaRow.



The trapeze packer roller closes the fertiliser band and at the same time reconsolidates the seeding layer. This supports the capillary rise of water and therefore promotes the speedy, even emergence of plants.





Two double disc coulters place seeds precisely on the reconsolidated seeding layer in a DeltaRow array. Once seeds have been ejected from the seeding shaft, they are fixed exactly at the desired place on the seeding layer by capture rollers.

Two V rollers with easily adjustable grade and pressure then cover the seeds with soil.

Improved plant distribution with LEMKEN DeltaRow.

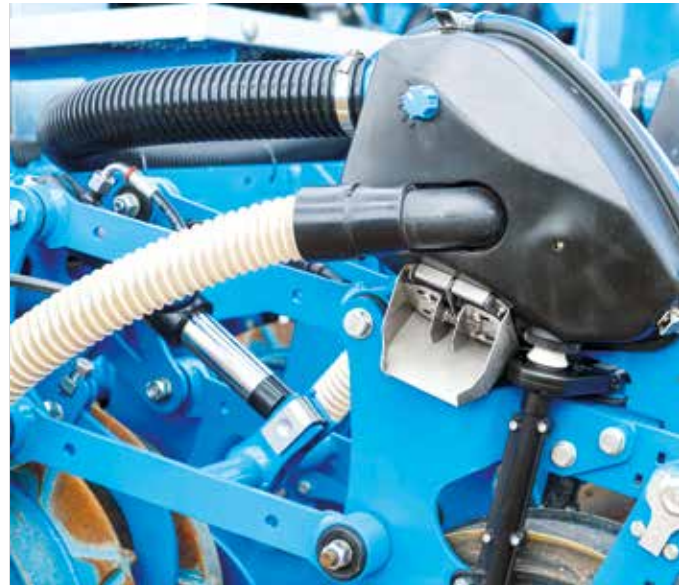


The technology



Central seed hopper

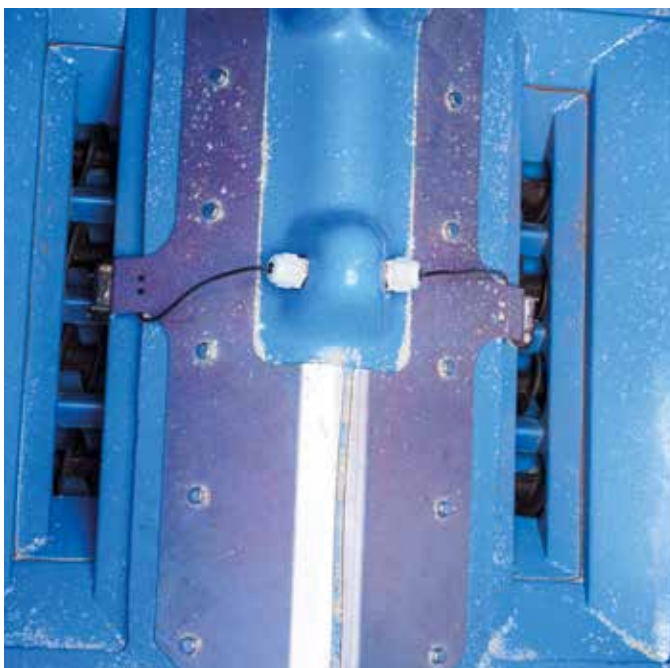
- Seeds are held in a central seed hopper with a capacity of 600 l, which lasts for up to 20 ha, depending on seed rates.
- The hopper is easily accessible from broad, safe steps and access grilles.
- Easy, centralised draining of seed residue via a start button directly on the seed hopper.



Seed residue drainage

- Comfortable draining of residue in the singling units.
- Seed changes can be made quickly in a few easy steps.

Seed on demand



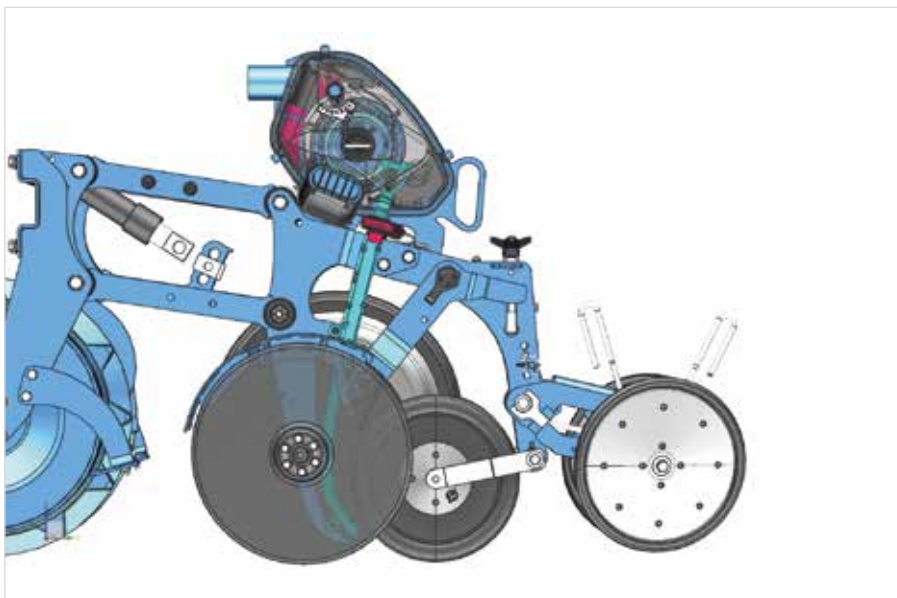
- Each singling unit holds only small volumes of seeds.
- Seeds are conveyed to the air stream and on to each singling unit via an auger metering system.
- Automated, sensor-controlled seed supply from the central hopper.

Seed singling



Precise seed singling

- Seeds are singled by two perforated discs offset against each other by half a hole spacing.
- The fixed connection between the two sowing discs ensures synchronicity within each DeltaRow.
- Each singling unit is driven by a separate electric motor for each sub-row of the DeltaRow.



Controlled placement

- The system operates at pressure to convey seeds from the singling unit through a seeding shaft to the seed row.
- Two optical sensors monitor the precision of the singling process.
- A capture roller prevents seeds from rolling away once they have been ejected from the seeding shaft.



Benefits

- Outstanding precision of the singling process even at high operating speeds due to low circumferential speeds of the perforated discs.
- Stable seeding unit position due to row preconsolidation by means of trapeze packer rollers.
- Easy seed logistics via a central seed hopper.

Tramline mechanism



Flexibility and ease

- Tramlines can be established without needing to reduce the number of seeds per hectare.
- Tramline widths of up to 87.5 cm can be achieved by switching off individual sub-rows.
- Fields can be driven on for fertilisation and crop protection using tyres that help preserve the soil.
- MegaSeed control allows the required tramline rhythm to be set easily.
- Information such as application width, track width and tyre width of the respective tractor is entered for automatic calculation of the required rhythm.
- Both half and full DeltaRows can be switched off.



Possible combinations



Azurit with front tank

The tank mounted on the front of the tractor holds and meters fertiliser, which is conveyed to the fertiliser coulters via hoses.



Azurit with Solitair 25

Fertiliser is held in the tank of the Solitair 25 and conveyed to the fertiliser coulters via a blower fan and metering units.



Azurit with Compact-Solitair 9

The tank holds the fertiliser, which is dispensed via the metering system.

MegaSeed



MegaSeed is the new ISOBUS-based operating concept for the Azurit 9 single-seed drill in standard LEMKEN design.

Logical design and intuitive operation

- The layout manager allows surfaces to be freely configured and saved as up to four profiles.
- The unit is operated either via the LEMKEN CCI-200 terminal or any universal ISOBUS terminal.



New diagnostic concept

- The information menu offers a range of diagnostic options.
- The new diagnostics system guides operators directly to the source of any errors in case of disruption and assists them in troubleshooting.



ISOBUS connectivity



As MegaSeed is fully ISOBUS-compatible, farmers benefit from all functionalities provided by an ISOBUS system when working with an Azurit.

TaskController compatibility

The LEMKEN MegaSeed control gives control via other ISOBUS-compatible SectionControl applications.

This allows individual rows to be switched on or off precisely based on GPS data. MegaSeed additionally per-

mits full seed drill integration into a farm's documentation and job management processes and is compatible with ISOBUS-compatible TC-Basic and TC-Geo systems such as CCI.Control.

MegaSeed provides data for exchange with field management systems. When using the system in combination with a GPS signal, location-specific data is also collected, enabling location-specific job planning. Location data can similarly be used for part width section-specific treatment of areas.

Data is exchanged in ISO XML or shp data format, either by USB stick or via mobile networks, if the terminal features a mobile module. This allows jobs to be easily imported and/or completed documentation to be exported after job completion.

Technical data

Model	Working width	Number of rows / row distance	Tank volume	Weight	Possible combinations with LEMKEN implements
	(approx. cm)	75 cm	(approx. l)	(approx. kg)	
Azurit 9/4.75	300	4	600	1.000	Compact Solitair, Solitair 25 KA
Azurit 9/6.75 K	450	6	600	1.900	
Azurit 9/8.75 K	600	8	600	2.300	
Azurit 9/4.75 D	300	4	600	1.175	Compact Solitair, Solitair 25 KA
Azurit 9/6.75 K D	450	6	600	2.150	
Azurit 9/8.75 K D	600	8	600	2.600	



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.

Original spare parts from LEMKEN

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.



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