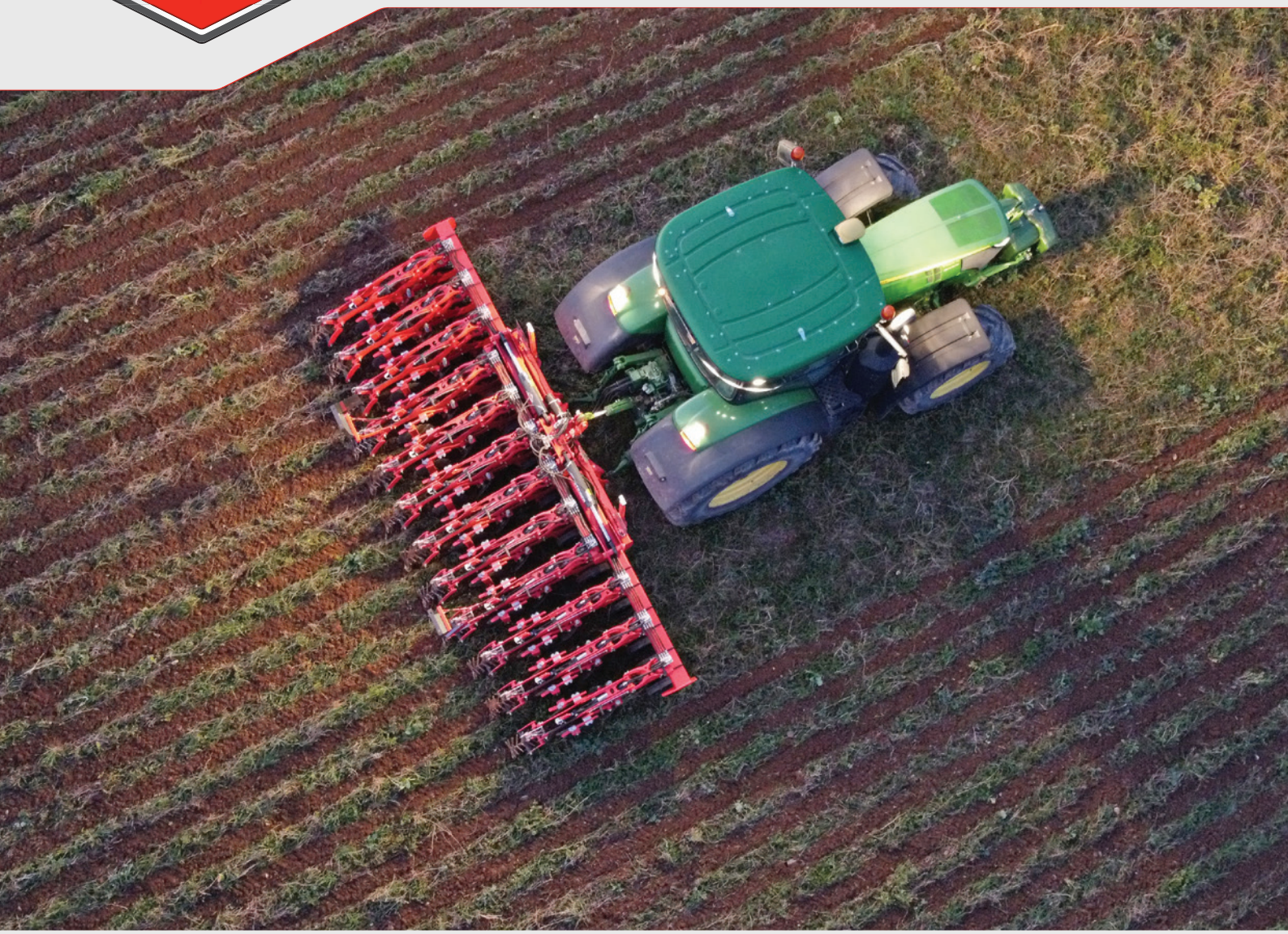
Strip-till: soil tillage preparation tool

STRIGER 100



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STRIGER 100 **100 M | 100 R**

Strip-till: soil tillage preparation tool

FOCUS ON THE ROW WITH STRIGER 100

STRIGER 100 IS THE AGRONOMIC TOOL DEVELOPED BY KUHN FOR STRIP TILLAGE. YOU BENEFIT FROM SOIL PREPARATION IN THE ROW SIMILAR TO A CONVENTIONAL METHOD, AND YOU CAPITALISE ON THE ADVANTAGES OF DIRECT SEEDING BY PRESERVING THE ROW SPACING STRUCTURE AND COVERING THE RESIDUE. THE SEED LINE IS WARMED UP TO HELP THE PLANTS GROW FASTER. ORGANIC MATTER AND MOISTURE ARE PRESERVED IN THE ROW SPACING.

VERSATILITY AND ADAPTABILITY

STRIGER 100 offers a wide choice of conditions of use: liquid, solid or slurry fertilisation, a wide choice of working parts and equipment, several chassis available with row spacing between 45 and 80 cm.

EFFICIENCY

With STRIGER 100, the potential of the field is maintained while preserving the life of the soil, limiting erosion and reducing the cultivated area by 80% depending on the row spacing. These agronomic advantages lead to economic gain, in particular by reducing mechanisation costs.

EXPERTISE

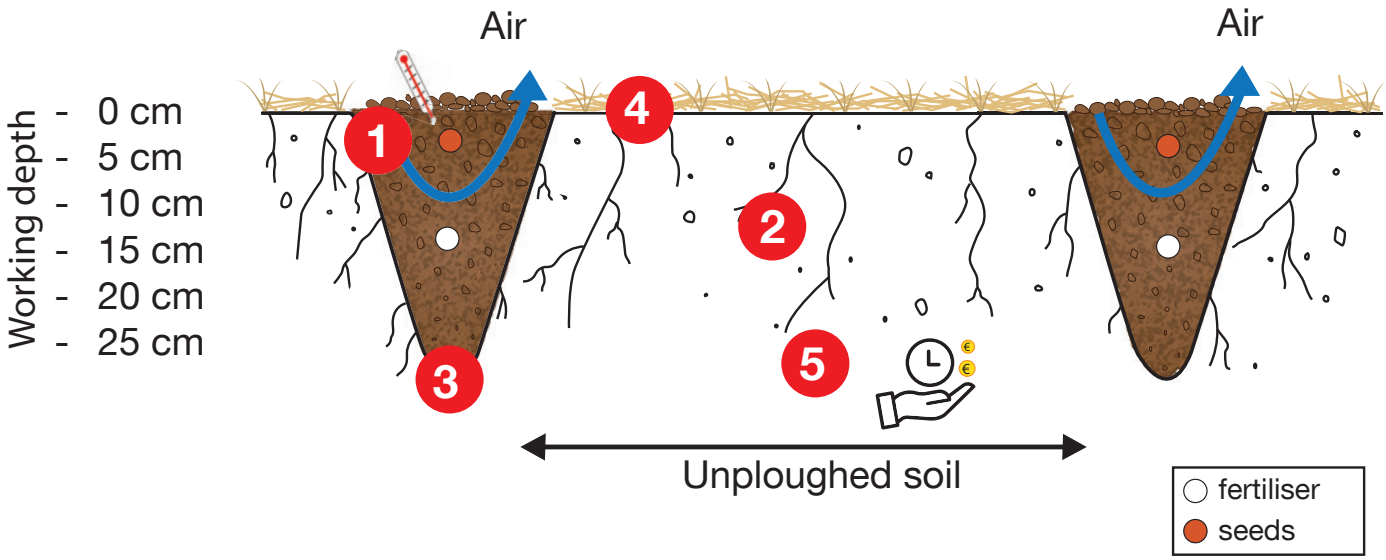
KUHN is one of the pioneers of the strip-till technique in France. The STRIGER has been on the market for almost 20 years. In the United States, KUHN is the best-selling brand for strip-till. We work hard every day to make our product a technical benchmark.

Choose a KUHN STRIGER 100 because high yields and optimal financial results start with quality tillage.

WHAT IS STRIP-TILL?

Strip-till consists of working only the future seed line, leaving a residue cover in the intact row spacing. By working only the seed line, you give the crop its best chance, just as you would with conventional preparation. In the row spacing, you benefit from the advantages of direct seeding: water conservation, less weed growth, better soil life and reduced mechanisation costs.

Strip-till is defined in 4 points: line cleaning, vertical tillage, seedbed preparation and fertilising.



1. Warming up the seed line to help the plants grow faster.
2. Preserving moisture between the rows or retaining natural rainwater infiltration channels.
3. Loosening the soil without creating a deep seedbed.
4. Preserving organic matter on the surface, limiting weed growing in the row spacing.
5. Saving time and fuel.

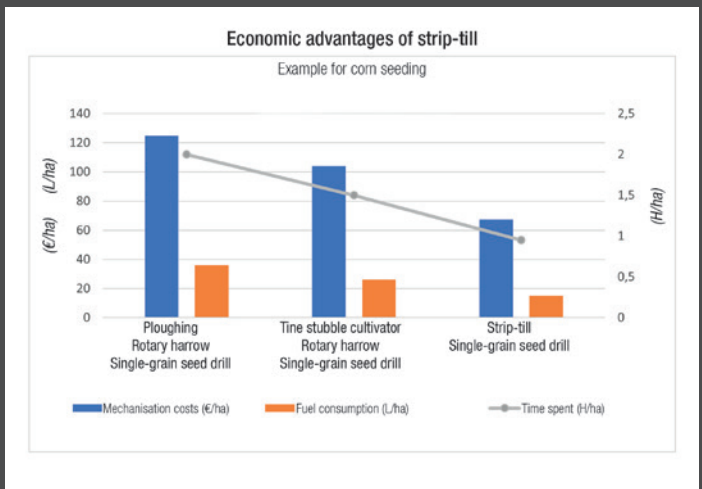
STRIP-TILL WITH STRIGER 100

Strip-till is a regenerative farming technique that requires a certain amount of precision to achieve satisfactory results. There are a number of points to bear in mind for successful strip-till.

First of all, proper observation of the soil is essential to analyse its composition (texture, moisture) and detect any areas of compaction. Also pay attention to the infesting plants and the fauna in the plot.

The climatology of the region should also be taken into account:

- probability of freezing
- rainfall
- typical climate at the start of spring



Guaranteed savings

The strip-till technique has a number of advantages for yields that are identical to conventional and tillage farming methods. Reducing the workload means spending less time per hectare on strip-till. Fuel consumption and mechanisation costs can be cut by between a third and a half with strip-till, depending on the type of itinerary used.

CONDITIONS OF USE

Clay soils (>20% clay)

2 passes are often necessary:

- The aim of the first pass is to create a coarse, non-tamped structure to allow winter conditions to take effect. To create a mound on the line, the tamping chain wheel is preferred, and can even be retracted.

- The aim of the second pass in spring is to create fine tilth on the surface for good soil/seed contact. The advantage of this is that it allows to warm up, fertilise and obtain a firm seed line. To avoid damaging the deep structure created by the winter conditions, the working depth should be limited to the seeding depth.

Silty and sandy soils (<20% clay)

- A quick passage at shallow depth to mix a heavy soil flow in order to obtain fine tilth on the surface and rapid heating of the line.

When planting summer crops (rapeseed), it is advisable to pass the STRIGER only once.
Depending on the weather conditions, it can be applied just after harvesting or just before seeding.

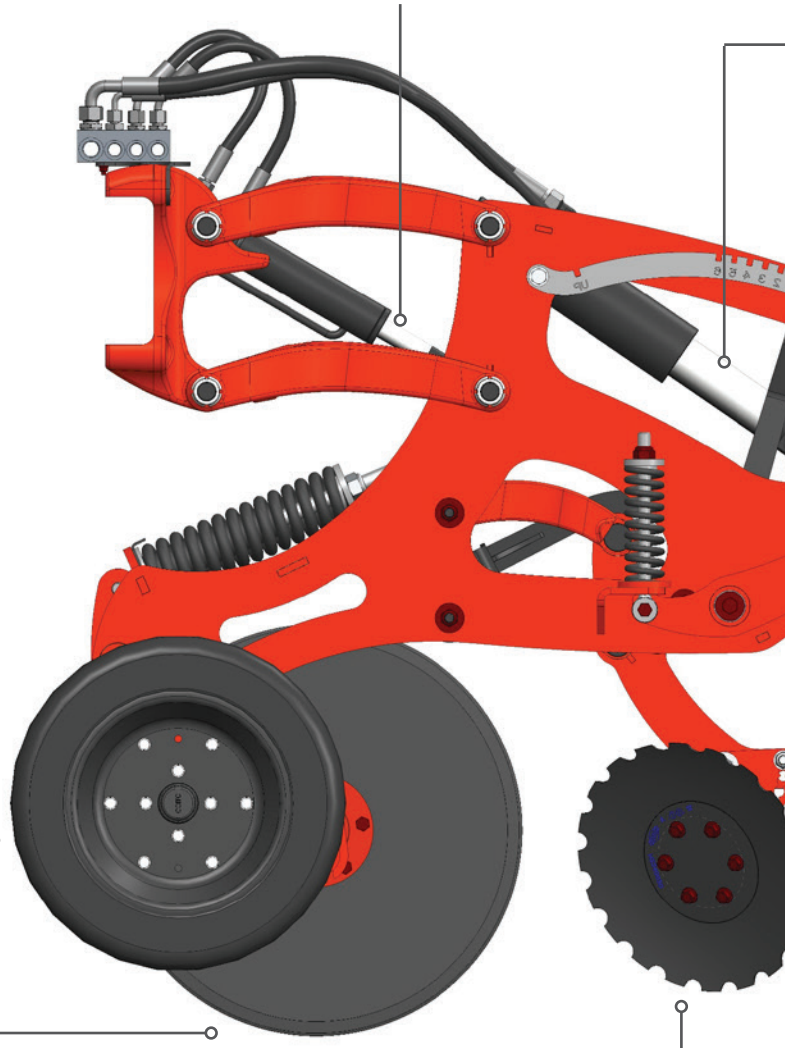
It is recommended to fertilise the bottom of the row before seeding. For this work, the rubber-tired wheel is the most appropriate, since it provides a high level of tamping and moisture conservation, which is essential for summer crops.

	Soil type	Objectives	Depths	Speeds
Spring	Clay soils	Loosen the soil Prepare the line before seeding (e.g. maize, sunflower) Warm the ground	5 to 20 cm	8 to 12 km/h
	Sandy loam soils		5 to 15 cm	
Summer	Clay soils	Prepare the line before seeding (e.g. rapeseed) Keep the line moist	15 to 20 cm	8 to 12 km/h
	Sandy loam soils			
Autumn	Clay soils	Loosen and create a rough structure	15 to 30 cm	6 to 8 km/h
Winter	Clay soils	Allow freeze/thaw and precipitation to take effect	/	/

STRIGER 100 WORKING SECTION

The STRIGER element is the key to successful strip-till. To achieve this, KUHN has developed a high-performance, easy-to-use working section.

Hydraulic ground tracking
Each element is mounted on a hydraulic parallelogram. In the floating position, the element follows the movements dictated by the gauge wheels for optimum ground tracking, even on hilly ground.



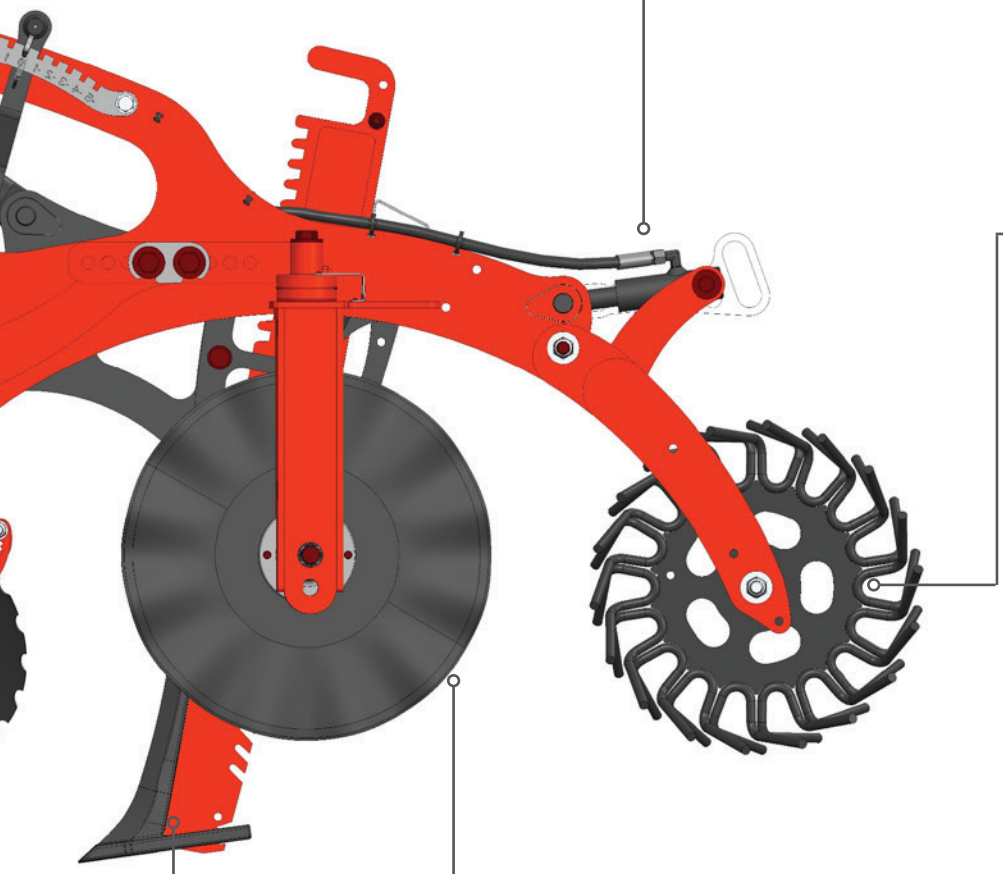
Gauge wheel
The gauge wheels ensure that the element tracks the ground perfectly and that the residue is held in place before the opening disc passes through.

Opening disc
The opening disc cuts through plant residue in the seed line and opens the way for the tine.

Trash remover
The trash remover clears the seed line to provide a residue-free seedbed.

Hydraulic tine safety
The tine is equipped with a hydraulic non-stop safety system in the event of an obstacle, which can be triggered by up to 1000 kg point force.

Hydraulic tamping
The pressure on the tamping wheel is hydraulically controlled to perfectly adapt to all conditions.



Clod breaker wheel
The tamping wheel breaks and compacts the seedbed for optimum development of the next crop.

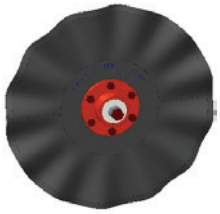
Side discs
The deflector discs direct the soil flow while creating fine tilth on the surface. Mixing the soil does not affect the row spacing, but significantly reduces weed emergence.

Tine
The tine loosens the soil on the seed line, promoting root development.

HIGH-PERFORMANCE EQUIPMENT

KUHN offers a wide range of equipment to meet all your needs. STRIGER 100 stands out for its easy and reproducible adjustments to ensure excellent tillage.

Smooth disc



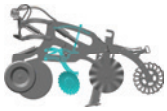
Corrugated disc

OPENING DISCS

The two types of opening discs enable users to equip their STRIGER according to their needs. The smooth disc provides for enhanced cutting in the presence of residue or a heavy root system, while the corrugated disc provides better line expansion before the tine passes through. It also reduces smearing. The depth of the disc varies between 1 and 6 centimetres and is set between the gauge wheels.

Each opening disc is fitted with a mechanical non-stop safety device for quality work even in stony soils.

TRASH REMOVER



The attack angle and height of the trash remover can be adjusted quickly and without tools. Depending on the operating periods, they can be set from the high-power position in the presence of a large amount of residue to the very light or even retracted position in the event of spring activity start. These small-notched, curved discs ensure good cutting and clean-up of residues on the line.
Each trash remover is mounted on its element by a parallelogram with a mechanical non-stop safety device. In the presence of obstacles, the safety device triggers independently without interfering with the rest of the element, for uninterrupted tillage.

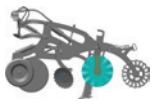
TINE / POINT / DISC

The tine provides STRIGER 100 with excellent loosening capacity requiring less traction power. It can be fitted with two different points.

The carbide point offers three times the service life of the standard point for tough conditions.

The points improve the life of the tine by providing complete protection for the stay. The Fast-fit disassembly system allows for points to be replaced quickly, for higher work rates. The working depth of the tines can be adjusted quickly and without tools, from 7 to 30 centimetres. The STRIGER 100's tine can be replaced by two high-performance rework discs, particularly during the second spring pass.

SIDE DISCS

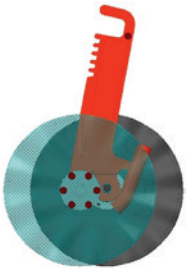


The choice of discs depends on your soil conditions and the type of work you want to achieve. Corrugated deflector discs are versatile, channelling and mixing a heavy soil flow. The curved, notched deflector discs cut residue more effectively and create a mound, which is mainly needed for autumn work.

The 3D adjustment system for the side discs allows for a multitude of working possibilities. It is therefore possible to vary the forward speed, the strip width, the angle and the pressure of the deflector discs. Each side disc is fitted with a mechanical non-stop safety device to ensure optimum working quality at all times.

Standard point

Carbide point



Rework discs

Small-notched curved discs

Corrugated discs

FINISHING WHEELS

Line tamping is the last action performed by the STRIGER 100 working section. The objective is to finalise the seedbed preparation. To achieve this, KUHN offers hydraulic pressure adjustment of the tamping wheel to adapt quickly to all soil conditions. Furthermore, STRIGER 100 can be fitted with 3 types of tamping wheels:

Clod breaker finger wheel

It creates fine tilth on the surface and compacts the profile at a depth of 3-4 centimetres to ensure good soil/seed contact. This wheel is mainly recommended for the start of spring activity.

Rubber-tired clod breaker wheel

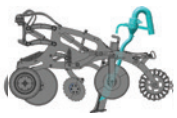
Its high tamping capacity helps maintain moisture in the soil. This wheel is suitable for summer work.

Clod breaker chain wheel

It preserves the mound created by the tine and the side discs. Its light tamping and medium crumbling make it easier to work in winter conditions on the line. This wheel is recommended for the first autumn passage.

ADAPTABILITY AND SIMPLICITY

LOCALISED FERTILISATION



KUHN is committed to reducing the impact of crop improvement and protection. Localised fertilisation provides economic and environmental benefits. Applying fertiliser as close as possible to the plant's roots means that the dose can be reduced by approximately 20% for the same yield potential as surface fertilisation.

This dose reduction will reduce nitrate leaching at depth. The localised fertilisation will also inhibit around 25% of ammonia emissions linked to agricultural activity.

With the price of fertilisers constantly on the rise, excellent distribution means that crop potential can be optimised.

STRIGER 100 can also be used without GPS, with markers available on each model. The aim of regular row spacing is to ensure optimum passage for the seed drill. They are easily adjustable in length and power. Each marker is fitted with a traction bolt safety device for efficient working even under high stress levels. It is hydraulically unfolded/folded from the tractor cab.

STRIGER 100 offers the advantage of fertilising your crops on the row with the fertiliser kit fitted to the tine. However, the tine working depth and application depth settings are independent, allowing fertilisation to be carried out as close to the roots as possible, regardless of the working depth. KUHN offers complete fertilisation solutions for solid, liquid and organic fertilisers.

Fertilising with solid fertilisers:

- Support and distribution head
- Cyclones and distribution head
- Adaptation to front-mounted hopper (or trailed hopper)

This is a complete KUHN solution offering a very easy to set up fertilisation turnkey solution.

Fertilising with liquid fertilisers:

- Adjustable nozzle points

Fertilising as close as possible to the roots means that the nutrients are better assimilated by the plant at an early stage of development.

Organic fertilisation (slurry):

- Distribution support
- Adjustable nozzle points

The addition of slurry combined with STRIGER 100 enables to increase the profitability of your machine and save organic matter by spreading only on the future seed line.

STRIGER 100 M - fixed chassis

Technical data

	300 M 4 rows	300 M 5 rows	300 M 6 rows	350 M 5 rows	350 M 7 rows
Working width (m)	3			3.5	
Transport width (m)	3			3.5	
Max. tractor power (kW/hp)	88/120	110/150	132/180	110/150	154/210
Working depth (cm)	30				
Number of rows	4	5	6	5	7
Seed line spacing (cm)	60 / 70 / 75 / 80	55 / 60	45 / 50	70 / 75	45 / 50
Approximate weight (kg)	Contact us				
Frame	Fixed				
Linkage	Std 2-3				
Lighting and signalling	As standard				

STRIGER 100 R - folding chassis

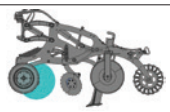
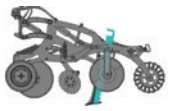
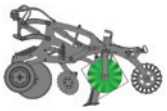
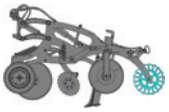
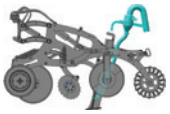
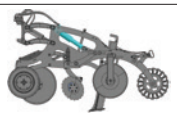
Technical data

	440 R 6 rows	440 R 7 rows	440 R 8 rows	600 R 8 rows	600 R 9 rows	600 R 11 rows	600 R 12 rows
Working width (m)	4	4.4		6			
Transport width (m)	3						
Max. tractor power (kW/hp)	132/180	154/210	176/240		198/270	242/330	264/360
Working depth (cm)	30						
Number of rows	6	7	8		9	11	12
Seed line spacing (cm)	70 / 75 / 80	55 / 60	45 / 50	70 / 75 / 80	55 / 60	55	45 / 50
Approximate weight (kg)	Contact us						
Frame	Folding						
Linkage	Std 3 - 4 N						
Lighting and signalling	As standard						

KUHN PARTS

Parts built to last. With our high-tech foundries and forges and state-of-the-art production facilities, KUHN manufactures spare parts that will last for years to come. You can really count on our expertise and our genuine parts. Through our KUHN PARTS warehouses, farmers benefit from our customer support and logistics services which ensure fast and reliable repair solutions in collaboration with your nearest KUHN Authorised Partner.

Available equipment

Opening disc		 Ground tracking of the section	 Corrugated disc	
Tine / Disc		 Rock point	 Carbide point	 Double rework disc
Deflector disc		 Corrugated disc	 Notched disc	
Tamping wheel		 Clod breaker finger wheel	 Rubber wheel	 Chain wheel
Fertilisation		 Solid fertilisation	 Liquid fertilisation	 Slurry chute
Marker		  Markers		
Ground tracking of the section		 Hydraulic ground tracking		

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Discover the KUHN ranges of soil preparation equipment

1. PROLANDER vibrating tine cultivator - 2. OPTIMER L independent disc stubble cultivator - 3. OPTIMER XL independent disc stubble cultivator - 4. PERFORMER tine/disc cultivator - 5. CULTIMER tine stubble cultivator - 6. STRIGER 100 strip till implement

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