

Trailed seed drills for no-till seeding

AUROCK 6000 R
AUROCK 6000 RC



www.kuhn.com

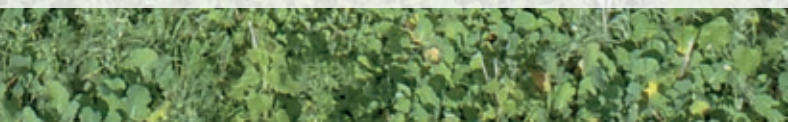


be strong, be **KUHN**



AUROCK**6000 R****6000 RC**

TOMORROW'S CHALLENGES, TODAY'S ANSWER... AUROCK



Since the beginning of the 21st century, cultivation methods have progressed to the point of conservation agriculture. With this system, ploughing is replaced by different degrees of shallow tillage. Conservation agriculture includes minimum tillage and no tillage. With AUROCK, the trailed seed drill for no-till, the crucial seeding stage will be a success: the only tillage operation.

SUCCESS IS MODULAR

This seed drill comes in a single-metering-unit version with the AUROCK 6000 R, and a twin-metering-unit version with the AUROCK 6000 RC. It is easy to mix two species in the same unit or seed every-other row. These seed drills can be configured to adapt to all of your requirements and specific conditions.

FAITHFULL TO THE TRIPLE-DISC CONCEPT

For over 40 years, the triple-disc concept has proven its efficiency and simplicity. The first disc opens the seeding line in front of the double disc which follows the furrow perfectly thanks to its integrated pivot feature.

COMFORT AND SIMPLICITY ARE OPTIMUM

The AUROCK seed drill is ISOBUS compatible, as standard. All components are designed for easy access and tool-free adjustment. The machine comes with a simple programmable sequence.

Contents

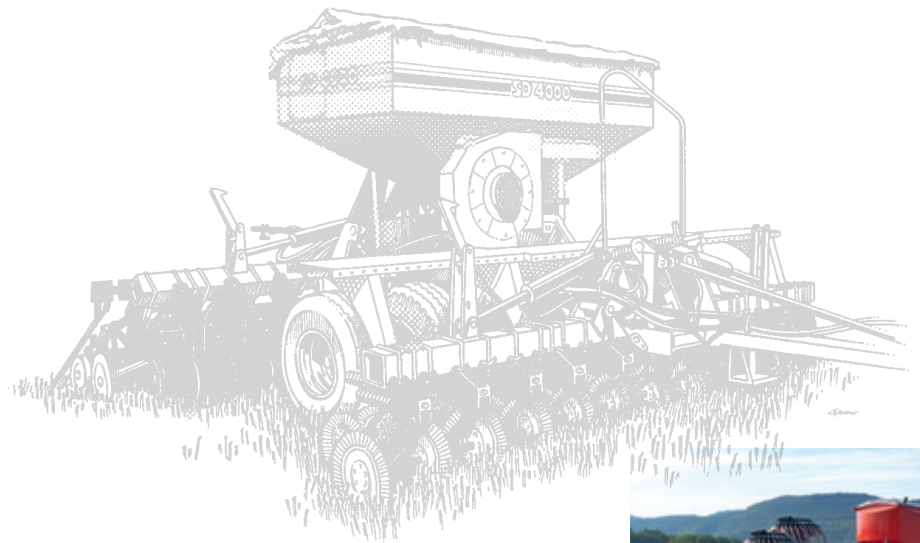
The new AUROCK, all of KUHN's know-how in one machine	4
Successfully changing to no-till	6
Changing practices with the AUROCK seed drill	8
Modular, for diversified crop rotation	10
Faithfull to the triple-disc concept	12
An intuitive seeding experience	14
SH 1120 additional seeder	16
KUHN electronics	17
VISTAFLOW tramlining valve	18
Technical specifications	19

AUROCK**6000 R****6000 RC**

THE NEW AUROCK SEED DRILL, ALL OF KUHN'S KNOW-HOW IN ONE MACHINE

With more than 40 years' experience in the field, KUHN has created 6 m wide, triple-disc AUROCK 6000 R and AUROCK 6000 RC to optimise planting in cover crops, with min-till or no-till methods.

- 1** 1975
SD 300
- 2** 1993
SD 300 Mechanical
- 3** 1995
SD 400
- 4** 1997
SD 300 Pneumatic
- 5** 2003
FASTLINER 1000 SD
FASTLINER F 1000 SD
- 6** 2007
SD LINER 3000
- 7** 2019
AUROCK 6000 R
AUROCK 6000 RC



That was in 1975...



THE DEVELOPMENT OF AUROCK SEED DRILLS

KUHN's extensive know-how and driving innovation have been the basis of the impressive versatility and proven reliability throughout this machine's development. Everything has been included in our range of AUROCK seed drills to give you total satisfaction, reduce your planting costs and increase your operational productivity.

The exceptional story of the AUROCK seed drill range started way before its construction. It started when we heard the needs and goals of farmers and it continued with the rigorous selection of materials and the assembly process...



2019



SUCCESSFULLY CHANGING TO NO-TILL

Did you know? Conservation agriculture can reduce soil erosion by 90% in Europe according to a report from the European Federation of Conservation Agriculture. Conservation agriculture is based on three priorities: reducing soil projection to a minimum, keeping the soil covered permanently and adapting crop rotation to agronomical issues that arise.



GETTING INFORMATION

In order to change to conservation agriculture or no-till methods, you need information. Nowadays it is easy to meet specialists, visit farms or take part in informational meetings. There are many producer groups and associations whose aim is to encourage these new practices and they are good source of information and a way to acquire knowledge.



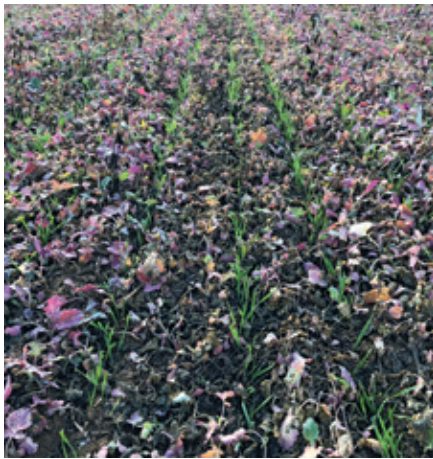
A GLOBAL VISION

All production factors need to be controlled; soil conditions, equipment, seeding method, fertilisation, weeds, rotation... The interaction between these different elements has to be taken into account too.

The economic benefits are already proven...

The following economic report is the result of a "long tillage" trial carried out by the French Institute Arvalis. The findings are averages from 1998 to 2008 on a surface area of 120 ha and the following prices: wheat €120/t, nitrogen: €1/unit; fuel €0.45/l and glyphosate €10/l.

The trial was carried out over two rotations: beetroot-wheat-spring barley and maize-wheat.



PLANT COVER CROPS

They help maintain the structure of the soil, sequester carbon and nutrients as well as reduce erosion, but they must not be neglected! They need to be looked after like a real crop so as not to create different problems and imbalance. Relay cropping is also an option to consider for improving the ecological nutrition of the main crop.

A GRADUAL TRANSITION

When changing methods, it is recommended to start with one or two plots only before transitioning completely. A plot with a sufficient surface area that is representative of the others should be chosen to start with. Playing safe allows you to learn and take corrective action if necessary in order to master the technique gradually as the surface area increases.

USE PROGRESSION INDICATORS

Simple measurements can be used to control progress towards conservation agriculture. Trapping and counting lifeforms in the soil is one technique for example, and observing the activity of earthworms on the surface is another. To get an idea of progress made in carbon sequestration and nutrition provided by cover crops, it is easy to weigh fresh and dry biomass. Taking photos of the soil structure or root development and comparing them over the years is another good way to verify soil improvement in terms of structure and porosity. Soil analyses and checking rates of organic matter over a period of a few years are also simple tests that can be done to confirm the positive changes.

Euros/ha/crop	Ploughing	Min-till	No-till
Capital invested in material (€/ha)	2 796	2 429	2 379
Traction power (hp/ha)	2.8	1.8	1.8
Fuel (l/ha)	78	60	49
Work time (h/ha)	3h55min	3h00min	2h30 min

AUROCK**6000 R****6000 RC**

CHANGING PRACTICES WITH THE AUROCK SEED DRILL

Changing to no-till or conservation agriculture means changing methods. It takes about 5 to 7 years' experience to find a new equilibrium in the soil.



FERTILISATION DEVELOPMENT

In general, nitrogen soil mineralisation results from the soil's structure. That's why during the first years of no-till when the soil is still relatively compact from the previous cultivation methods, and biodiversity in the soil has not yet had time to make it very porous, the trend is to fertilise earlier, just after winter.

RETHINK CROP ROTATIONS

Lengthening rotations for grain crops is fundamental in the fight against weeds. In general it is necessary to include spring crops and alternate between nitrogen-releasing crops and nitrogen-thirsty crops. Residue management, pests and weeds also have to be taken into account for crop rotation. Although the number of broad-leaf weeds is reduced, grasses tend to be more invasive. That's the benefit of cover crops which occupy the soil and help contain weeds. Mechanical weeding is also known to be effective for the top few centimeters of soil. A seed drill that doesn't disturb the soil too much, such as the AUROCK, limits weed emergence compared to a seed drill that creates a lot of fine soil.

SPECIAL PRECAUTIONS

Managing straw residues is different with no-till. The quantity and spread can easily become a hindrance. It is recommended to cut high at harvest in order to be less impeded by too much residue when seeding. With the AUROCK seed drill, it is possible to do a run with the roller first to flatten the stubble. It is also advisable to slightly increase seeding density by 0 to 10% for rape and winter grain crops and 5 to 15 % for spring crops. This increase should be adapted to the amount of residue from the previous crop and the condition of the soil. It is preferable to seed winter crops slightly earlier with no-till so as to work in dryer conditions, and slightly later for spring crops to benefit from better drainage.



DISEASE AND PESTS

Leaf diseases do not increase with these methods. It is, however, wise to organise crop rotation according to the specific risks of fusarium and mycotoxin when planting wheat after maize or the risk of helminthosporiosis with a second wheat crop. Pests continue to be kept under control by having more beneficial secondary fauna such as ground beetles.

THE RC MODEL makes everything possible

THE AUROCK 6000 RC SEED DRILL WITH A WORKING WIDTH OF 6.00 M IS EQUIPPED WITH TWO METERING AND DISTRIBUTION SYSTEMS. OPERATING POSSIBILITIES ARE ENDLESS WITH A HOPPER DIVIDED IN TWO!



MAIN CROP
+ FERTILISER IN THE SAME ROW



MAIN CROP
+ FERTILISER EVERY OTHER ROW



2 SPECIES
EVERY OTHER ROW



TWO CROPS IN THE SAME ROW



TWO CROPS IN THE SAME ROW



1 SPECIES EVERY OTHER ROW



VARIETY A + VARIETY B

AUROCK

6000 R

6000 RC

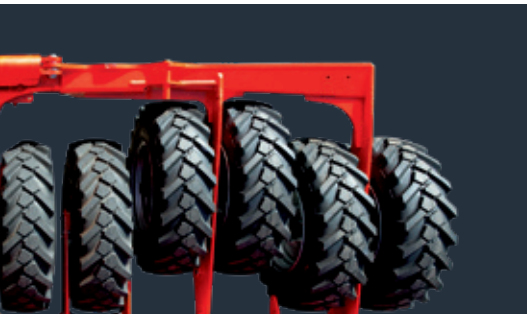
MODULAR, FOR DIVERSIFIED CROP ROTATION

The versatility of the AUROCK seed drill is impressive. It can be equipped with specific parts that allow you to drill in any conditions. You can adapt to previous crops, the quantity of residues and climatic conditions, including the impact they have had on the soil.



FRONT ROLLER STUBBLE-BREAKER

The AUROCK seed drill can be equipped with a front roller to flatten plant cover and accelerate the decomposition of green residues or to crush large woody plants. Seeds can then be delivered to the bottom of the furrow with no obstructions. You can even adjust the roller's ground pressure from the terminal in the cab. The mulch on the surface of the soil will maintain moisture in the ground in dry conditions. Nitrogen is also put back into the soil and biological activity boosted. With the AUROCK, destroy plant cover and sow in one single pass.



UNIQUE! PRESS WHEELS FOR MIN-TILL

You can add press wheels across the width of your tool to improve weight balance for min-till. With a diameter of 900 mm, we guarantee that traction power will be reduced. The bulldozer effect is completely eliminated thanks to the 200 mm offset between the wheels. Result: the soil is tamped uniformly across the entire working width and the AUROCK seed drill can plant at a constant depth.



TWO CHOICES FOR INTER-ROW SPACING

The AUROCK seed drill comes in two versions! You can choose 15 cm or 18.7 cm inter-row spacing to suit your requirements. It is also possible to set the seeding units higher to modify inter-row spacing and to provide better clearance for plant debris.



REAR COVERING HARROW

The AUROCK seed drill can be equipped with a covering harrow for an extra layer of fine soil over your seeds. You can adjust ground pressure (pressure increase/reduction) as well as harrow angle. It can also be lifted to suit conditions.

TWO TYPES OF OPENING DISC

The furrow is created at the front of the AUROCK by two rows of opening discs mounted on a maintenance-free bearing. Two models are available to suit different conditions:



A 460 mm diameter wavy disc to work tilled ground with possible soil expansion.



A 430 mm embossed disc cuts residues effectively and reduces soil projection.



Maintenance-free bearing for opening discs.

FAITHFULL TO THE TRIPLE-DISC CONCEPT

The opening disc and seeding unit together form the triple disc that we have believed in for more than 40 years.

THE TRIPLE-DISC UNIT: FURROW OPENING AND SEEDING

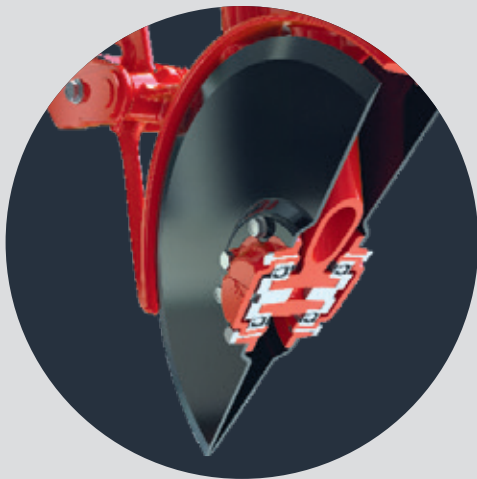
Seeds are placed in the furrow by the seeding unit with parallelogram-mounted double discs. the system is precise, delivery is optimal and ground following perfect. the triple-disc unit is therefore composed of a furrow-opening disc and a double seeding disc.

Having two models of opening disc enables you to adapt the triple-disc unit to your conditions. you will create fine soil in the seeding row with this unit and you'll be able to adjust furrow-opening and seeding pressure.



CENTRAL PIVOT CONTROL

A central pivot between the seeding bar and the frame allows you to place the seed in the furrow when turning. The seeding unit follows behind the opening disc perfectly at all times. The pivot point is controlled with the in-cab terminal. It prevents misplacement on slopes.



EASY MAINTENANCE

If ever you have to do maintenance work on the discs, it's easy. The disc can be removed without having to remove the bearing, and as we wanted to offer you the most robust of machines, the bearing is protected inside a sealed cup.

ADJUSTING THE DOUBLE SEEDING DISC

The double seeding disc has a wide range of adjustment possibilities. It can be set for high clearance in plant debris for example. Depth adjustment is simple and tool free. Individual pressure adjustment is available as an option. It is an ideal solution to prevent wheel tracks made by the tractor and to get optimum seeding regularity. It also allows you to manage two different seeding depths more easily when drilling every other row with different species.



DOUBLE DISC ALIGNED ON PARALLELOGRAM

The double seeding disc is mounted on a parallelogram structure for soil/seed contact in all conditions.



SLANTED PRESS WHEEL

The press wheel is slanted and offset in relation to the middle of the furrow created by the seeding unit. This design provides perfect furrow closing and optimal tamping.



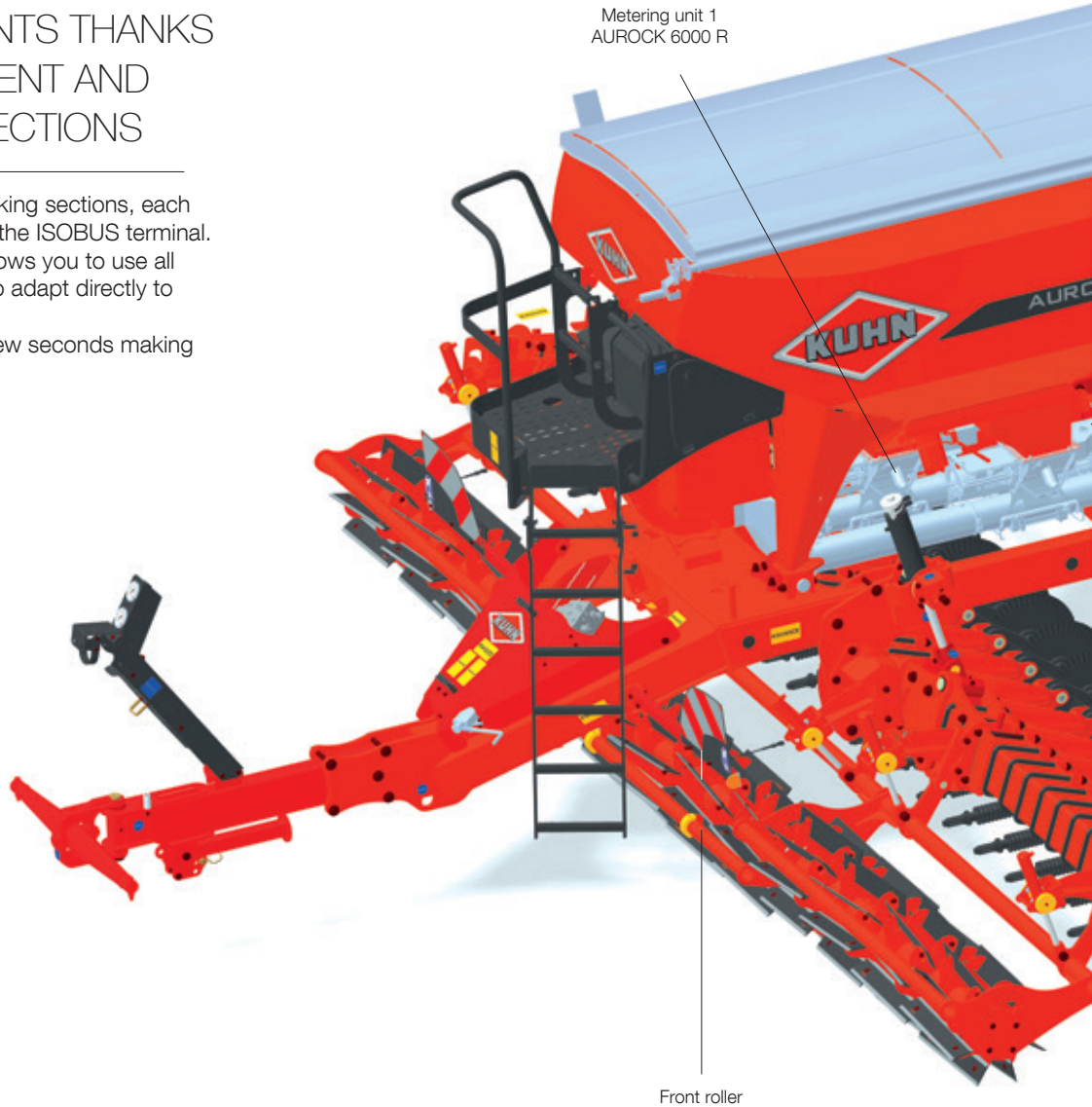
AUROCK**6000 R****6000 RC**

AN INTUITIVE SEEDING EXPERIENCE

The AUROCK seed drill is an ISOBUS-compatible machine, available with CCI 800 or 1200 terminals (ISOBUS-certified by the AEF). For additional user comfort, the machine can be used with an AUX-N compatible joystick (CCI A3).

EASY ADJUSTMENTS THANKS TO SIX INDEPENDENT AND AUTOMATABLE SECTIONS

The AUROCK features six working sections, each controlled independently from the ISOBUS terminal. This precise control system allows you to use all the versatility of the machine to adapt directly to your soil-climate conditions. It can be automated in just a few seconds making it very easy to manage.



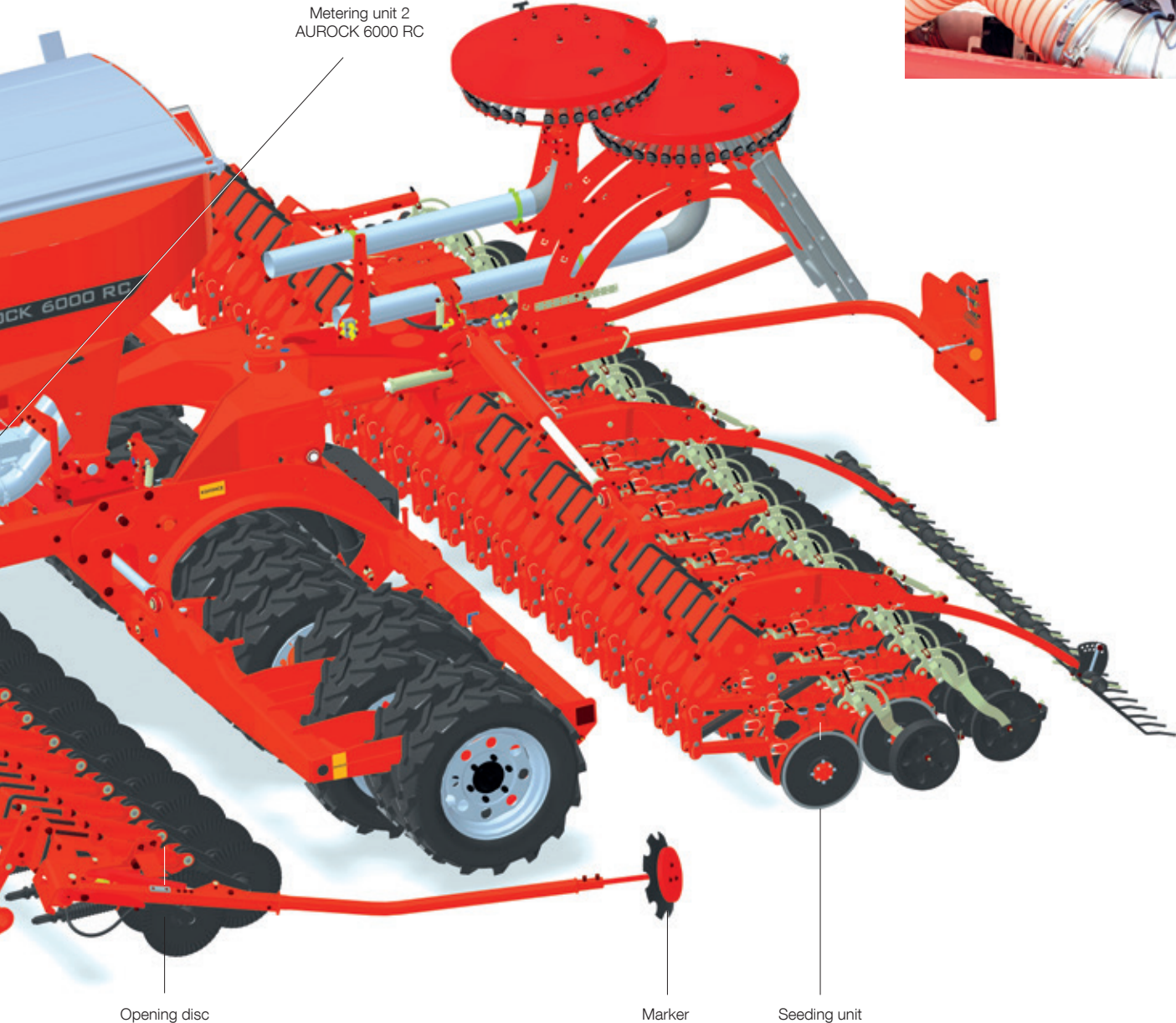
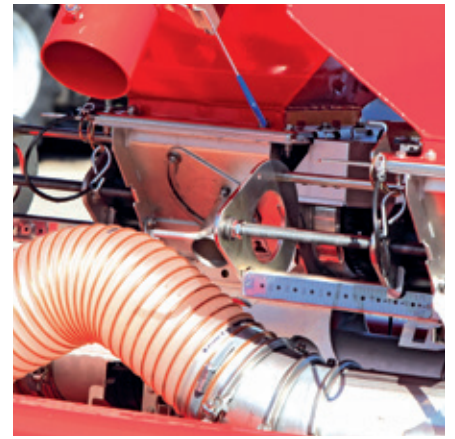
OPENING DISC ADJUSTMENT BY SPACERS

The opening-disc adjustment system is a real time saver. It is just on the outer cylinders and is easy to reproduce with the different colours and numbers on the spacers. Take control of furrow-opening precision and the seed drill will ensure high-capacity adaptation.

Individual adjustment is available (250 to 300 kg) as an option. With it, you'll be able to seed two different species and at two different seeding depths.

ADJUSTING APPLICATION RATES

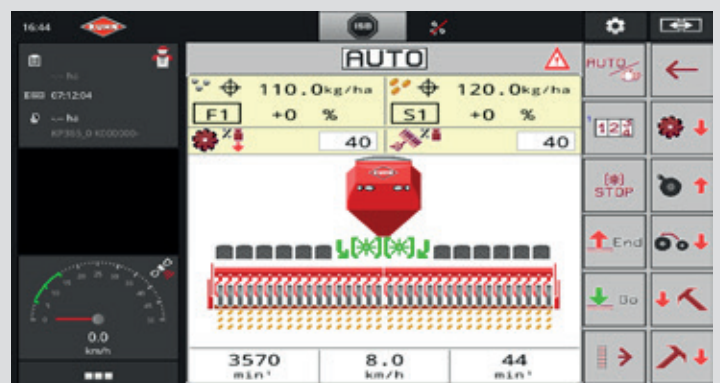
The AUROCK seed drill is equipped with a volumetric, proportional and precise metering unit. It is capable of seeding small or large seeds without removing the roller. The seed drill also has an agitator that can be shut-off, as standard. Two mobile sensors measure seed level in the hopper, even when it is full. There are four possible positions for the sensors depending on the type of seed being used. You can also view hopper level on the terminal in the cab with the possibility of receiving a warning when the level is low.



INTUITIVE SEED-DRILL MONITORING

Whatever control terminal you choose, the interface was specially developed by KUHN to be user-friendly and intuitive. By simply pressing a button at the end of the field, the front-tool will lift and metering unit(s) will stop successively. So seeding is perfect right to the edge of the field.

It is the guarantee that no seed remains on the surface which is known to be an issue with no-till methods.



ADDITIONAL SEEDING POSSIBILITIES WITH SEVERAL HOPPERS

From now on you can seed up to 3 products at 2 different depths in min-till applications with the AUROCK RC seed drills. The possibilities offered by the presence of several hoppers on the same seed drill are numerous and very beneficial. Plant two different species and incorporate a fertiliser, establish a cover crop with three precisely dosed species, bring starter fertiliser or mineral elements as close as possible to the seed or deliver products for protection against pests and slugs.

SH 1120 TO MIX TWO DIFFERENT APPLICATION RATES

With a capacity of 110 l, placed on the drawbar of the seed drill at the front of the machine, the additional SH 1120 hopper allows you to sow a multitude of products with a seeding density ranging from 0.6 to 65 kg/ha for any working width from 3 to 6 m. Thanks to the flow of air from the seed drill's blower and the two electrically driven HELICA metering units, the incorporation of an additional product contained in the SH 1120 hopper is made with the machine's first metering unit. The electrical drive of the distribution system facilitates the implementation of the calibration test. A simple pulse on a switch is required to start the test.

*Limits differ according to products and widths. For further details, please consult us.



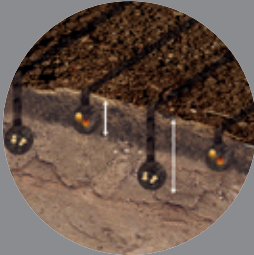
PRECISE METERING IN ALL CONDITIONS

Whatever the seed size, the HELICA groove allows switching from one cultivation to another with ease. SH seed drills being ISOBUS compatible, seed distribution is automatically controlled by the tractor's ground speed and/or hitch position.

AUROCK 6000 RC + SH 1120



MAIN CROP + FERTILISER IN THE SAME ROW + SLUG PELLETS



COVER CROP MIX AT 2 DIFFERENT DEPTHS



2 SPECIES ONE ROW OUT OF 2 + SLUG PELLETS ON THE ROW

AUROCK 6000 R + SH 1120



COVER CROP MIX



CROP AND SLUG PELLETS



COMPANION CROP

KUHN ISOBUS SOLUTIONS

Benefit from the ISOBUS compatibility of the range of AUROCK and AUROCK RC seed drills!

CCI 800 AND 1200: ONE TERMINAL FOR ALL KUHN MACHINES

CCI 800 and 1200 ISOBUS terminals are AEF-certified. They bank on three priorities: performance, visibility and flexibility. Control your machines intuitively with their large size antiglare touchscreen. Capable of displaying simultaneously various essential information, supporting the connection of a joystick and a camera, these terminals are highly versatile.



The compact ISOBUS terminal



The 8"/20.3 cm screen displays the main machine and mini-views on the side. Click on the mini-view you wish to enlarge.

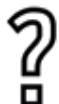
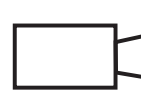
CCI 1200: Innovating, wide screen, high performance



With the 12.1"/30.5 cm screen, all essential information is displayed. Different display formats are possible: mini-view / maxiview / double UT.

A MULTITUDE OF APPLICATIONS ARE STANDARD

<p>TECU Recover tractor basic information</p>	<p>CONTROL Control your tasks and your ISO-XLM documentation</p>	<p>CONVERT Connect to your biomass sensor</p>	<p>CAMERA Connect a camera and display live images</p>	<p>HELP SYSTEM The assistance you need</p>
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DISCOVER THE CCI APPLICATIONS

<p>SECTION CONTROL Automatic seeding management per GPS</p>	<p>RATE CONTROL Application rate modulation per GPS (SHP and ISOXML) of several products (ex. seeding+fertilisation)</p>	<p>DATA TRANSFER Data import/export via agrirouter</p>	<p>PARALLEL TRACKING Guidance + tramlining assistance per GPS with the Tramline Control function</p>
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EVERYTHING AT YOUR FINGERTIPS

Combine your CCI terminal with your new CCI A3 ISOBUS joystick and control the main functions of the seed drill with your fingertips. Start your headland turn sequence with ease using the CCI A3!

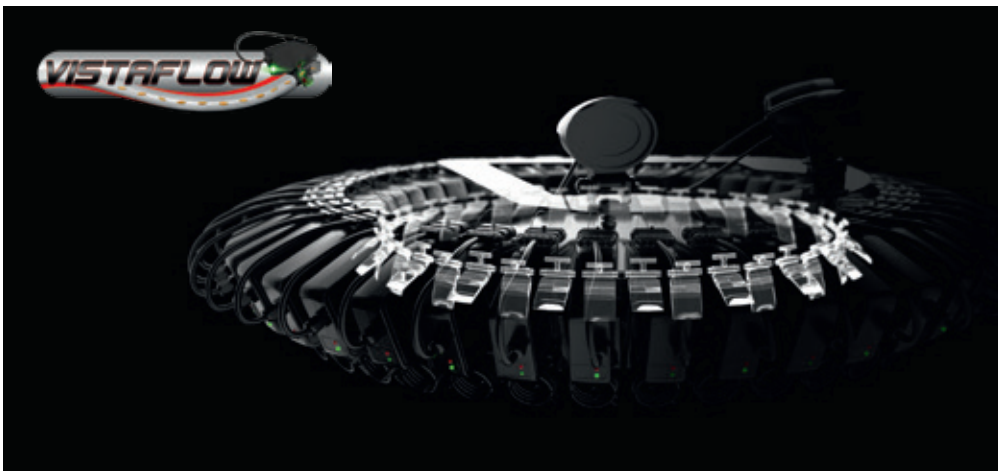


THE VISTAFLOW TRAMLINING VALVE

VISTAFLOW is an intelligent tramlining valve that monitors seed passage inside seeding tubes. Fitted to the distribution head of each seeding row, the VISTAFLOW tramlining valve enables any tramlining rhythm and controls seed passage in each row.

MAKE LIFE EASIER with universal tramlining

Tramlining is possible even when seeding and spraying widths (sprayer and spreader) are incompatible. With this revolution, no more moving valves or tubes on seeding units! Access additional functions directly from the cab such as half-width shut off (left or right) and every-other-row shut-off. Different configurations can be saved through the user interface for subsequent operations. It saves the following tramlining configurations: working width, track and tyre width of sprayer or self-propelled sprayer and fertiliser spreader.



Need help?

With the KUHN VISTAFLOW configurator, find out how many valves you need to achieve your tramlining rhythms based on your seed drill, spreader or sprayer working widths.



Intelligent monitoring and detection of tube blockage; absolute peace of mind

VISTAFLOW tramlining valves feature intelligent monitoring and detection systems. If a blockage appears in the distribution head, the control terminal automatically displays a warning message indicating the row concerned so that the necessary action can be taken rapidly.

A red LED lights up on the distribution head to show exactly which valve has a blockage. The KUHN ISOBUS-terminal interface is easy to use and ergonomic. It provides fast access to saved tramlining configurations as well as fast and intuitive access to the automatic functions on the interface.

Take advantage of the Tramline Control technology

In automatically generating your tramlining lines using the GPS position, you choose simplicity and gain precision with the Tramline Control option.



*Requires a CCI 800 or 1200 with Parallel Tracking activation

Specifications

	AUROCK 6000 R		AUROCK 6000 RC	
Working width (m)	6			
Transport width (m)	3			
Number of opening discs in 2 rows	32	40	32	40
Number of rows in 2 rows				
Spacing between rows (cm)	18.75	15	18.75	15
Weight without options (kg)	8600	9200	8700	9300
Tractor hydraulics required	1 SA for blower drive (except with VARIO) 1 SA for the hydraulic block - 1 Free return (for block and blower)			
Tractor power required (kW/hp)	132/180			
Speed signal	◇ On-board radar			
Total capacity (l)	3500		5000	
Hopper division	-		50/50	
Loading height (cm)	2.90		3.30	
Opening size (cm)	124 x 276			
Metering (kg/ha)	1 to 430			
Number of distribution/metering units	1		2	
Distribution drive	Centralised volumetric metering unit with electric drive			
Agitator with shut-off	◆			
Guillotine hatch for hopper/metering separation	◆			
Emptying hatches	◆			
Blower drive	◆ Tractor hydraulics ◇ Vario blower			
Opening disc	Wavy or embossed			
Seeding unit	Triple disc: 1 opening disc + 1 double disc on parallelogram			
Press and transport wheels	◆ 4 wheels 500/50 R 17 ◇ Press wheels across entire working width			
Number of tramlining valves	◇ 2 x 2 rows in symmetrical or asymmetrical rhythms			
Control terminal	CCI ISOBUS terminal or tractor's ISOBUS terminal			
Electronic monitoring	Hopper level - Blower speed - Hatch and metering unit rotation			
Electronic application rate modulation	◆			
Anticipation of rotation	◆			
Loading platform	◆			
Press wheels and depth control	◆			
Automatic headland management	◆			

◆ standard ◇ optional - not available

Optional equipment: front roller - press wheels over the whole width - vario blower - individual seeding unit pressure adjustment - side markers - retractable covering harrow - CCI 1200 - CCI 800 - CCI A3 - VISTAFLOW.

KUHN SERVICES* Maximise the use and productivity of your KUHN equipment

*Not all services and equipment are available in every country.

KUHN sos order

Express spare parts service 24/7

You urgently need spare parts? With KUHN SOS order benefit from express delivery seven days a week, 365 days a year. Thus, you can minimise machine downtime considerably and increase your work output.

KUHN protect +

The choice of professionals!

Benefit from 36 months in complete serenity because of KUHN's protect + warranty. You can concentrate exclusively on your work and the performance of your machine. Because this is what you expect, when investing in high-tech machinery.

KUHN i tech

For ever quicker repairs!

An unexpected technical problem always occurs at the wrong time. Your KUHN dealer can support you quickly and efficiently thanks to KUHN i tech. With this 24/7 online service, a quick and exact diagnosis is possible.

KUHN finance

Invest rationally!

New machine necessary, financing unsure? Modernise your equipment and develop your farm with KUHN finance, in total safety and according to your needs and demands. We offer custom-made finance solutions, adapted to your requirements.

AUROCK

6000 R

6000 RC

KUHN GUIDE: EVERYTHING THERE IS TO KNOW ABOUT COVER CROPS!

New innovative techniques are necessary in order to improve economic and environmental performances on farms.

It isn't that simple though, because managing the inter-crop period is always a compromise between different objectives.

Learn how to make a success of your intermediate crops, in this guide.



Check out the most complete range of seed drills on the market.




1. mounted mechanical 2. integrated mechanical 3. with front hopper 4. integrated pneumatic 5. trailed pneumatic 6. mounted min-till 7. trailed min-till 8. precision seed drills

For more information about your nearest KUHN dealer, visit our website www.kuhn.com



Visit us on our YouTube channels.

 <p>www.kuhn.com</p>	<p>Your KUHN dealer</p>
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