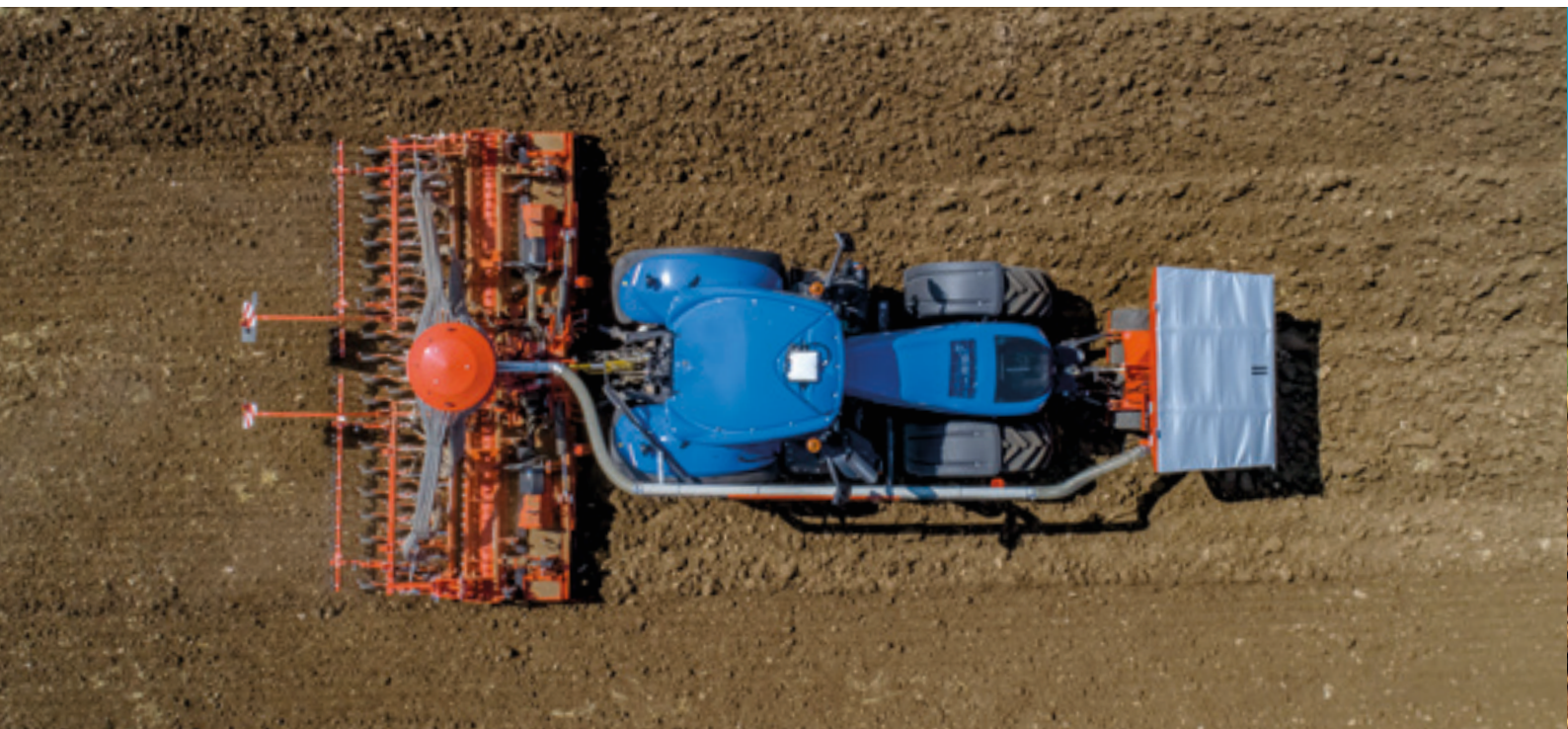




Front hopper - seeding bars
TF 1512 | BTF | BTFR
COMBILINER VENTA CSC 6000





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TF 1512 | BTF | BTFR

VENTA CSC 6000

Front hopper - seeding bars

FROM VERSATILITY TO AUTONOMY

THE HIGH-CAPACITY FRONT HOPPER TF 1512 IS NOT ONLY IDEAL FOR SEEDING CROPS AND PLANT COVER, IT ALSO SERVES AS A FERTILISER HOPPER, MAKING A POWERFUL COMBINATION.



AN ALL-ROUNDER HOPPER

The TF 1512 front hopper can be coupled with seed drills, precision seed drills or tillage tools in the most varied conditions. This front hopper offers maximum versatility.

QUALITY PLANTING

BTF/BTFR rigid and foldable seeding bars and the COMBILINER VENTA CSC 6000 seeding combination ensure optimum work output with great soil/seed contact to ensure uniform germination of your crops.

EASY HANDLING

For both field crop sowing, fertiliser spreading and plant cover sowing: the TF 1512 is very easy to operate due to its high technical standard and above all because of its ISOBUS compatibility.

TF 1512 VENTA CSC 6000

FRONT HOPPER - CSC 6000

TF 1512

BOOST YOUR DRILLING PERFORMANCE. With its high capacity of 1,500 litres or an optional 2,000 litres (with extension) and its transport width of 2.50 m, the TF 1512 front hopper offers top performance, easy handling and compact design. Improved load balance between the front and rear axles of the tractor facilitates manoeuvring and avoids soil compaction.



VENTA CSC 6000

With its 6 m working width and the SEEDFLEX seeding unit, the CSC 6000 is the ideal seeding combination for:

- high output per area,
- optimum soil cultivation by power harrow,
- highly precise seeding.

The CSC 6000 can be folded to 3 m transport width and stands out for its flexibility and easy handling both in manoeuvres and road transport.



BTF 3030 | 4030 **BTFR** 4000 | 4500 | 5000 | 6030

THE BTF / BTFR SERIES

BTF 3030 - BTF 4030

Designed for drilling combinations with power harrows, the rigid BTF 3030 seeding bars with 3 m working width and the BTF 4030 with 4 m working width work just as well on min-tilled land as on ploughed land. Fitting the seeding bar on the roller frame of the power harrow ensures both perfect integration and quick and easy installation and removal.



BTFR 4000 - BTFR 4500 - BTFR 5000 - BTFR 6030

The foldable BTFR seeding bar is available in working widths of 4 m, 4.50 m, 5 m and 6 m. Use in combination with a front hopper reduces the load on the rear tractor axle substantially. The centre of gravity of this combination is more favourable. In addition, the SEEDFLEX technology ensures excellent seeding quality.



COMPACT AND HIGH-PERFORMANCE DESIGN

The compact and low-profile design of the TF 1512 front hopper ensures optimum unobstructed view in the field and on the road. The powerful fan drive prevents clogging from large seeds or when seeding at high ground speeds. There is a choice of two fan drives:

- VARIO drive from the tractor PTO shaft through a hydraulic plug-in pump,
- LOAD SENSING drive by the tractor hydraulics, independent of the tillage tool used.



Precise metering

The tried-and-tested VENTA metering unit is capable of spreading seeds and fertiliser reliably and without any additional equipment. The metering system with volumetric splines allows carrying out application rates from 1 to 430 kg/ha. The metering wheel opening is easy to adjust to infinitely variable rates by means of a crank. All essential components are made of stainless steel and require no maintenance.



Easy, quick and convenient

The calibration button is located close to the metering unit to launch the calibration test without having to step back into the tractor cabin. The metering unit is easy to reach thanks to the folding platform. The calibration assistant reliably guides the operator through the individual calibration steps.





Operator-friendly

The TF 1512 hopper is available as an ISOBUS version: the hopper is controlled by the ISOBUS CCI terminal or the tractor's ISOBUS terminal.

As an alternative, it can also be controlled by a QS2 terminal which is suitable for tractors without ISOBUS system and provides convenient operation on the colour display.

Quantron S2 - all essential controls at easy and convenient reach

The QS2 terminal ensures complete and precise seed management with the following functions:

- monitoring of important functions, e.g. metering unit revolutions, low hopper level, fan speed,
- manual or automatic application rate modulation using GPS,
- counter for 200 fields, saving of individual settings (e.g. seeds),
- work counter: daily and total counter, ground speed, tramlining,
- tramlining of 2 to 12 passages.

A 4-wheel packer can be optionally fitted to the front tank to pre-compact the soil between the tractor wheels. A support frame without wheel packer is also available in case no recompaction is desired. In both cases, fitting additional weights enables improving the balance of the tractor-machine unit.



SEEDFLEX: THE CORE OF YOUR SEED DRILL

Remember that 50 % of your harvest is already determined during seeding. The SEEDFLEX seeding bar will manage this operation to your satisfaction, even at high speeds. With its offset double discs and individual parallelogram guidance, the SEEDFLEX seeding units ensure fast and accurate seeding. With its large 35 cm offset between the two rows of coulters, the SEEDFLEX coultler is perfectly suited to the most varied soil conditions.



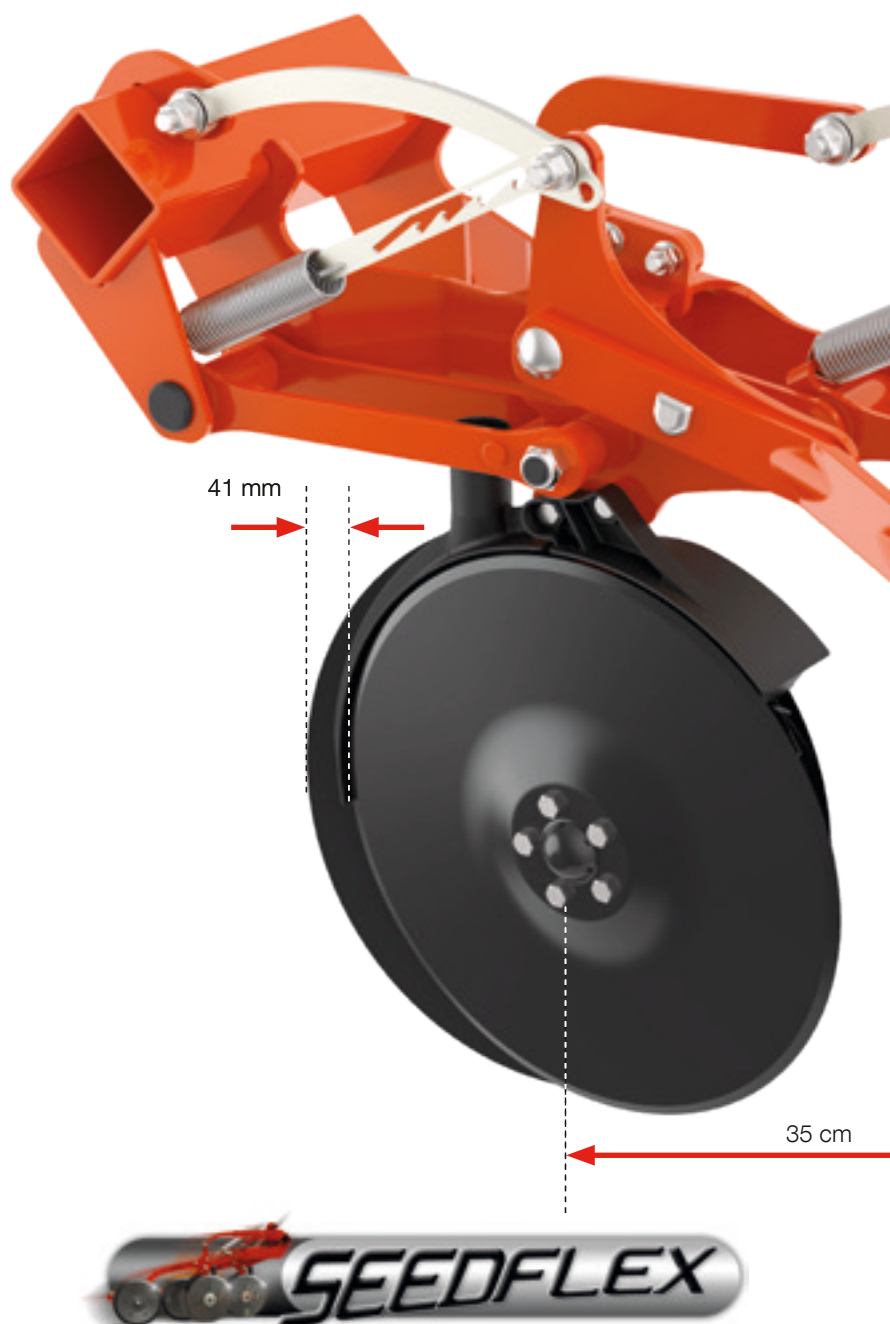
Perfect furrow opening

41 mm offset double discs open the furrow. Small opening angle to limit soil ejection in the row and make furrow closing easy.



Exceptional seeding precision on ploughed or min-tilled land

The large 35 cm offset between the two seeding units allows working even in clayey soils and through plant debris. The reinforced bearings provide optimum protection of the discs against clogging. The discs are bolted and thus enable easy maintenance.





Safe seeding

An overload protection on the rear seeding units prevents the seeding unit from breaking in case high forces or extreme movements act on the unit. Only the overload protection must be replaced, not the entire seeding unit.

Improves soil/seed contact

Depth guidance/press wheels for each individual seeding unit ensure respect of seeding depth and dynamic field emergence. Even on slopes, the parallelogram guidance ensures that the pressure roller follows the ground and that the seed grain is optimally pressed down with fine earth.



Respect of seeding depth even at high travel speeds

Individual parallelogram-guided seeding units with a depth guidance roller for each seed row ensure even seeding depth in the most varied soil conditions and ground speeds.



BTF 3030 | 4030 **BTFR** 4000 | 4500 | 5000 | 6030

HIGH-PERFORMANCE COMBINATIONS

Along with the TF 1512 front hopper, the BTF / BTFR form a perfect combination, both in the rigid and the foldable variant. The BTF / BTFR is designed for the most varied working conditions and is compatible with the following proven power harrow series:

- BTF 3030 - 4030 is compatible with HR 1020 / 1030 / 1040 and CD 3020,
- BTFR 4000 - 4500 - 5000 is compatible with HR 4004 R - HR 4504 R - HR 5004 R,
- BTFR 6030 is compatible with HR 6040 RCS.



Maximum seeding precision

The SEEDFLEX seeding unit with parallelogram guidance and press wheel stands out for its absolute precision in any working conditions and at high ground speeds. A 35 cm offset between both rows ensures smooth movement when working in heavy soils. The seeding depth is adjusted centrally, using a hydraulic cylinder and suitable spacers. The covering harrow with universal tines ensures perfect seed cover.

Easy settings

The seeding depth and coulter pressure can be adjusted hydraulically. The depth stop is defined by a spacer. The KLH 104 control unit allows machine folding and lifting, height adjustment as well as hydraulic top link adjustment. It only requires a double-acting hydraulic control valve.



Safe road transport

The BTFR 6030 is equipped with a removable transport frame featuring two large wheels which can be removed easily and quickly without tools. The combination is well-balanced due to the perfect integration of the seeding bar towards the tractor, producing unrivalled driving comfort.

Easy attachment to the power harrow

Seeding bar attachment and removal are easily performed without tools. Use of the power harrow solo is possible owing to the hydraulic seeding bar lift. As the coulter bar is attached to the roller frame, there is no need to readjust the seeding depth when the power harrow working depth is changed.

AT THE END OF THE DAY HIGH OUTPUT AND SEEDING QUALITY ARE WHAT COUNTS

The COMBILINER VENTA CSC 6000 allows combining soil cultivation and seeding in one single work process.

The following features ensure maximum seeding quality in the most varied conditions:

- compatibility with the tried-and-tested HR 6004 R power harrow, designed for high-power applications of up to 350 hp,
- perfectly integrated, seeding bar located on the wheel frame,
- SEEDFLEX seeding unit for quick and precise seeding.





1. Seeding combination and independent seed drill in one unit

The seeding bar being supported by the power harrow wheel frame, the COMBILINER VENTA CSC 6000 combines the advantages of a seeding combination with those of an independent power harrow:

- No need to adjust the seed drill's seeding depth when the working depth of the power harrow is modified,
- high stability and optimised ground adaptation, especially in stony conditions,
- the power harrow can disengage easily should it hit an obstacle,
- the seeding bar can be lifted by the hydraulic top link to work solo.

2. Easy settings

Set the machine parameters easily and precisely from the tractor seat:

- hydraulic setting of seeding depth and coulter pressure,
- two cylinders with spacers ensure precise compliance with set values,
- adaptation of seeding depth and coulter pressure is easily done during work to enable reacting to the most different ground conditions.



3. Your comfort is important to us

The hydraulic KLH 104 circuit selector is included with the COMBILINER VENTA CSC 6000 as standard equipment. It controls:

- folding/unfolding of the machine,
- coulter bar lift,
- seeding bar depth adjustment,
- coulter pressure.

One double-acting hydraulic control unit is all that is required to control four machine functions.

4. Easy handling

A removable transport frame provides safe and convenient road transport due to large-diameter double pivoting chassis wheels. The semi-automatic linkage system allows attaching and removing the frame without problem. Before starting fieldwork, the frame can be left at the side of the field to lighten the load while working. For road transport, the hydraulic top link is set to the float position to ensure the best possible absorption of impacts.

VISTAFLOW TRAMLINING VALVE

VISTAFLOW is a smart tramlining valve that monitors seed passage inside the 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



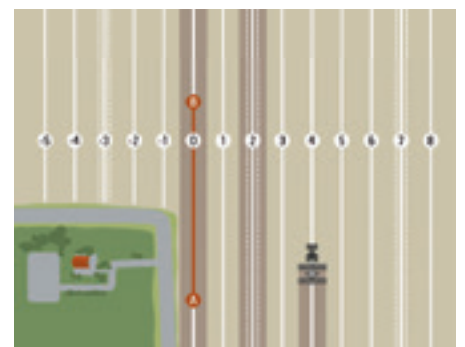
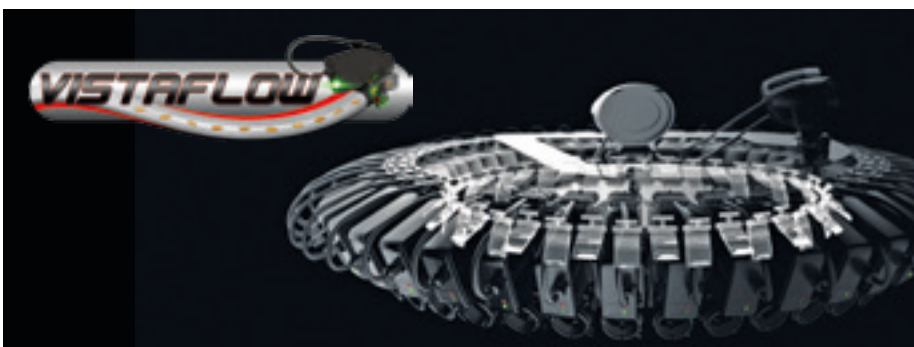
Tramlining becomes now possible even if seeding and spraying widths (sprayer and spreader) are incompatible. With this technical revolution, valves or tubes no longer have to be moved on seeding units!

Access additional functions such as half-width seed drill shut-off (right or left) and every-other-row shut-off, directly from the cab. Different configurations can be saved in the user interface for subsequent operations. The following tramlining parameters are saved: working width, track and tyre width of sprayer, self-propelled sprayer or fertiliser spreader.

Need help?

Use the KUHN VISTAFLOW configurator to find out how many valves you need to carry out tramlining as a function of working width of your seed drill and crop treatment tools (sprayer or spreader).

Go to www.kuhn.com



Smart monitoring and detection of tube blockage: absolute peace of mind

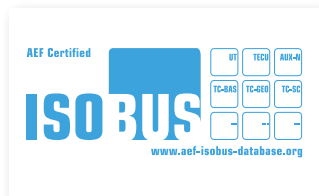
VISTAFLOW tramlining valves feature smart monitoring and detection systems. If a blockage occurs in the distribution head, the control terminal automatically displays a warning message, indicating the row concerned so that the necessary action can be taken rapidly. A red LED lights up on the distribution head to show the driver exactly which valve is blocked. The KUHN ISOBUS terminal is easy to use and ergonomic and provides fast access to preferred tramlining configurations as well as the best possible use of the automatic user interface functions.

Benefit from Tramline Control technology

Generate your tramlining lines automatically using your GPS position. The Tramline Control* option makes all this simpler and even more precise.

*A CCI 800 or 1200 terminal is necessary with Parallel Tracking activated

KUHN ISOBUS SOLUTIONS TAKE ADVANTAGE OF ISOBUS COMPATIBILITY ON KUHN SEED DRILLS!



CCI 800 AND 1200: ONE TERMINAL FOR ALL KUHN MACHINES

The CCI 800 and 1200 ISOBUS terminals are AEF-certified. They focus on three priorities: performance, visibility and flexibility. Control your machines intuitively on a large antiglare touchscreen. The display is capable of simultaneously displaying different essential information, The terminal offers a high degree of versatility with connections for a joystick and a camera.



CCI 800: The compact ISOBUS terminal

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



CCI 1200: Innovative, panoramic high-performance display

The 12.1" (30.5 cm) screen displays all essential information. Different display formats are possible: mini-view / maxi-view / double UT

A MULTITUDE OF APPLICATIONS COME AS STANDARD



TECU

Provides basic tractor information



CONTROL

Saves all completed tasks and your ISO-XLM documentation



CONVERT

Connects to your biomass sensor



CAMERA

Connect a camera and display live images



HELP SYSTEM

The assistance you need

DISCOVER THE CCI APPLICATIONS



SECTION CONTROL

Automatic seeding management by GPS



RATE CONTROL

Application rate modulation by GPS (SHP and ISOXML) of several products (e.g. seeds + fertiliser)



DATA TRANSFER

Data import/export via agrirouter

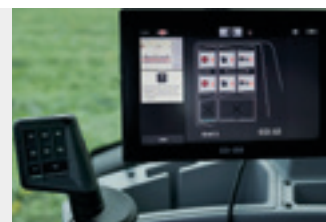


PARALLEL TRACKING

Guidance + tramlining assistance by GPS with Tramline Control function

Everything at your fingertips

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



ADDITIONAL EQUIPMENT FOR EVEN MORE COMFORT



Additional weights TF 1512

The mounting frame and the front wheel packer can be fitted with additional weights to achieve optimum ballast. Up to 800 kg can be added to the wheel packer and up to a total of 1,400 kg to the mounting frame.



Track markers and pre-emergence markers

To make tramlines visible even before the seeds emerge, pre-emergence markers are available as an option. The track marker can be used for marking the track for the following passage.



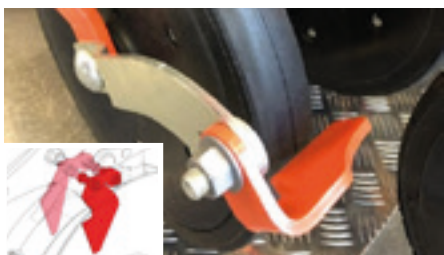
Top link sensor

The top link sensor allows cutting the seeding bar power supply while the machine is lifted. This is necessary e.g. when the partial width feature is used with the TF 1512.



LED work lights

The front hopper is equipped with LED work lights as standard equipment to provide optimum illumination. An additional two LED work lights can be fitted as an option.



Scrapers

When working in heavy and humid soils, the press wheels can be fitted with scrapers. Outer scrapers which prevent soil from accumulating on the seeding discs are also available for the SEEDFLEX seeding unit.



KUHN PARTS



Designed and manufactured to rival time. KUHN foundries and forge as well as a high-level manufacturing process allow the production of spare parts to defy time. You can truly rely on our know-how and our genuine parts. Farmers benefit from our client support and logistics services via any KUHN PARTS warehouse, which provide quick and reliable repair solutions in cooperation with your nearest authorized KUHN dealer.

	TF1512 WITH CARRYING FRAME	TF 1512 WITH WHEEL PACKER
Transport width (m)	2.50	
Hopper capacity (with extension) (l)	1,500 (2,000)	
Payload (kg)	1,800	
Weight with frame approx. (kg)	745	785
Loading height (cm)	135	165
Opening dimension (cm)	210 x 124	
Distribution	Electrically driven centralised volumetric metering unit	
Electronic control	QUANTRON S2 or ISOBUS	
LED work lights	2 ◆	
Hopper and metering unit lighting	◆	
Hatch above metering unit	◆	
Front and side signalling	◆	
Retractable step	◆	
Parking stand	◆	

◆ Series equipment ◊ Special equipment - Not available

KUHN SERVICES*

KUHN sos order - Spare parts service, 24/7**
KUHN protect+ - The choice of professionals!
KUHN i tech - For ever quicker repairs!
KUHN finance - Invest rationally!



*Not all services are available in all countries. ** except January 1, May 1 and December 25

Technical specifications

	COMBILINER VENTA CSC 6000
Working width (m)	6.00
Transport width (m)	2.99
Attachment	Cat. 3 or 4N
Maximum permitted tractor power (kW/hp)	256 / 350
Primary PTO shaft	Walterscheid P600 series (reduced maintenance)
Power harrow	HR 6004 with DURAKUHN hard coated blades
Top link with safety valve	◆
Transport system	With semi-automatic attachment
Transport wheel dimensions	10/75-15.3 (2x)
Speed signal	Tractor radar signal
Blower drive	By tractor LS hydraulics or independent vario drive (800 - 1,000 rpm)
Metering unit	One central metering unit with bay wheels
Application rate (kg/ha)	1 to 430
Seeding unit	SEEDFLEX : 35 cm offset double disc mounted on parallelogram, fitted with carbide-coated disc scrapers
Number of rows	40
Spacing (cm)	15
Seeding depth adjustment	Hydraulic
Maximum coulter pressure (kg)	45
Coulter pressure adjustment	Hydraulic
Hydraulic coulter bar lift	◆
Disc inner scrapers	◆ (with carbide plate)
Covering harrow	◆
Side track markers with safety	Folding to the rear
Rollers	MAXIPACKER or STEELLINER
Lighting and signalling	◆
Electronic equipment	QUANTRON S-2 or ISOBUS
KLS 104 (hydraulic selector)	◆
Required hydraulic equipment	With TF 1512 : 2 x DA
Approx. weight (kg)	5,250 (with MAXIPACKER) 5,400 (with STEELLINER)

◆ Series equipment ◇ Special equipment - Not available

	BTF 3030	BTF 4030	BTFR 4000	BTFR 4500	BTFR 5000	BTFR 6030
Working width (m)	3.00	4.00	4.00	4.50	5.00	6.00
Transport width (m)	3.00	4.00	4.00	3.00		
Transport position	Rigid		Folding			
Transport height (m)	2.20		2.60	2.80	3.10	3.75
Compatible seedbed preparation tool	HR 3020 - 3030 - 3040 - CD 3020	HR 4020 - 4030 - 4040	HRB 403 DR HR 404 HR 4004 DRC	HRB 453 DR HR 4504 DRC	HRB 503 DR HR 5004 DRC	HR 6040 RCS
Number of rows	24	28/32	27/32	30/36	33/40	40
Spacing (cm)	12.5	12.5 / 14.3 / 15				15
Hydraulic coulter bar lift	◆					
Seeding unit	35 cm offset SEEDFLEX double disc, fitted on parallelogram					
Covering harrow	◆					
Required hydraulic tractor equipment	1 x DA for side markers (special equipment) + all power harrow functions		1 x DA for side markers and coulter bar lift 1 x DA for harrow and coulter bar folding			1 x DA for hydraulic unit 1 x DA for side markers 1 x DA for top link
Tramlining	2 x 2 VISTAFLOW tramlining valves as standard					
Half-width shut-off	VISTAFLOW					
Approx. Weight (kg)	910	1,080 / 1,290	965 / 1,040	1,070 / 1,175	1,200 / 1,300	1,500 / 1,700
Terminal	ISOBUS-Terminal or QUANTRON S2					ISOBUS terminal

◆ Series equipment ◊ Special equipment - Not available

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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. Foldable pneumatic
6. Mounted min-till
7. Trailed min-till
8. Precision seed drills.

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visit our website www.kuhn.com

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