Variable Chamber Round Balers

VB-VBP 3100 SERIES



www.kuhn.com



be strong, be **KUHN**



VB-VBP 3100 series

TAKE HIGH DENSITY BALING TO A NEW LEVEL!



KUHN IS OFFERING A NEW GENERATION OF ROUND BALERS ENABLING YOU TO MEET THE NEW CHALLENGES OF TOMORROW.

THE KUHN ROUND BALERS ARE DESIGNED WITH YOUR MAIN BALING NEEDS IN MIND. THEY HAVE BEEN DEVELOPED TO HELP BOOST THE PROFITABILITY OF YOUR BALING OPERATION.

INNOVATION THROUGH PROXIMITY

The driving force behind KUHN is to supply the best quality in all aspects of baling. Employees here often come from farming backgrounds, creating a great of sense of personal involvement and a drawing on a wealth of knowledge and skill.

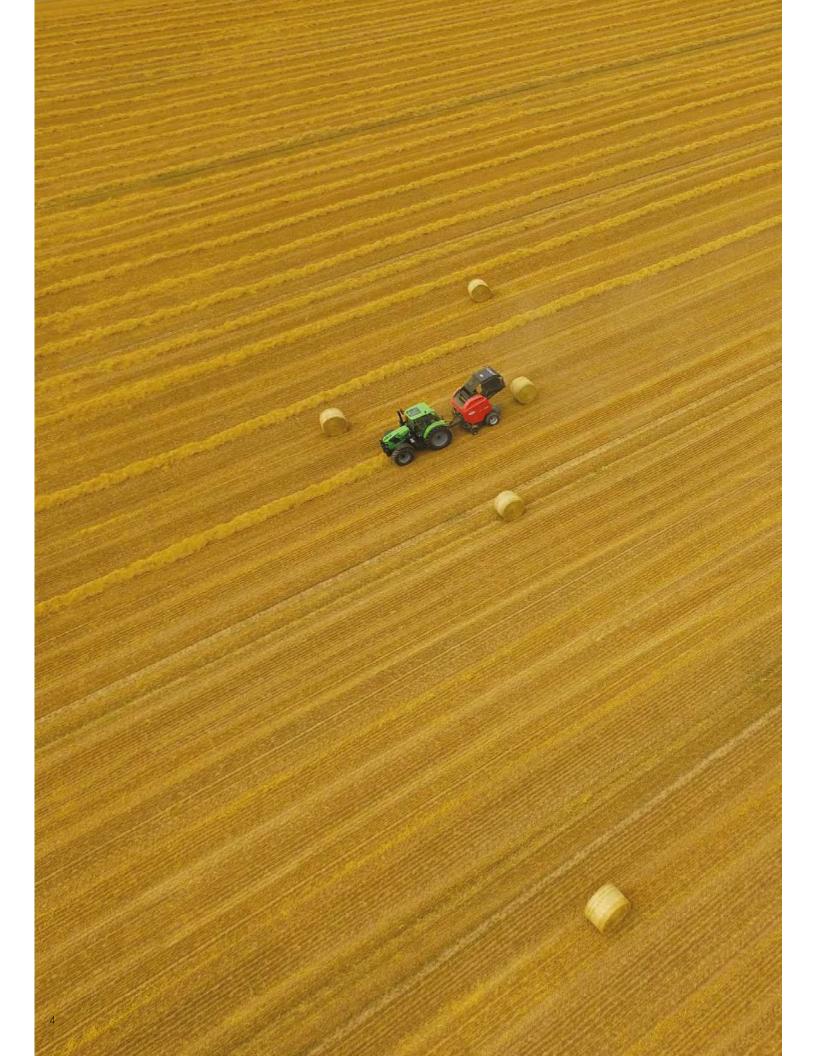
THE BALER SPECIALIST

Many years of experience has given us valuable knowhow and expertise in producing baling equipment. Our aim is to create simple, but efficient technology to improve the quality of work for our customers.





The second second second second second		
Model	Ø 80 - 160	Ø 80 - 185
VB 3155	•	
VB 3160	•	
VB 3185		•
VB 3190		•
VB 3165	•	
VB 3195		•
VBP 3165	•	
VBP 3195		•



DESIGNED BY KUHN, MADE BY KUHN

INTRODUCING THE VB 3100 RANGE

The KUHN variable chamber round balers take high density baling to the next level. The VB 3100 series offers a wide range of variable chamber round balers to match your individual preferences. They have been developed with the latest product innovations to ensure farmers and contractors worldwide get the maximum benefit.

The VB 3155-3185 are designed for the baling of dry materials such as hay and straw.

The VB 3160-3190 premium all-round balers, are standard ISOBUS balers that are designed for baling a wide range of forage materials, including silage.

For more extreme conditions we offer the VB 3165 and 3195 series. These balers are designed to work in the heaviest conditions across the world and are also available as baler-wrapper combinations; the VBP 3165 and 3195.

VB 3155 - 3185



VB 3160 - 3190 PREMIUM



VB 3165 - 3195 PREMIUM XD



VBP 3165 - 3195 PREMIUM XD



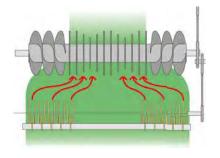
CROP FLOW CONTROL

KUHN VB 3100 balers guarantee optimal crop intake. The wide cam-track pick-up unit provides maximum ground following when combined with its pendulum capabilitie enabling it to work in the toughest conditions.

INTEGRAL ROTOR

Across the whole VB 3100 range is our patented INTEGRAL ROTOR Technology. This simple, maintenance free, intake system guarantees an enormous throughput capacity at all times. The short distance between rotor and pick-up tines maintains consistent crop flow. The design of this force-fed intake makes higher forward speeds possible for increased productivity and reduced crop damage.

The INTEGRAL ROTOR units consist of tines made out of HARDOX® wear plates*. HARDOX® combines extreme hardness and toughness to reduce rotor tine wear. Longer wearing life of the rotor tines will help to provide time and money savings for the operator.





INTEGRAL ROTOR TYPE

	VB 3155 - 3185	VB 3160 - 3190	VB 3165 - 3195	VBP 3165 - 3195
OPTIFLOW - Without cutting device	•	•		
OPTIFEED - Without cutting device	•	(Optional DROPFLOOR)	(DROPFLOOR)	
OPTICUT 14 - 70 mm cutting length	•	(DROPFLOOR)	• (DROPFLOOR, GROUP SELECTION)	(DROPFLOOR, GROUP SELECTION)
OPTICUT 23 - 45 mm cutting length			• (DROPFLOOR, GROUP SELECTION)	(DROPFLOOR, GROUP SELECTION)



GROUP SELECTION



^{*} Except VB 3155-3185

INTAKE PERFORMANCE

NON CUTTING VERSIONS

When cutting the crop is not required, the OPTIFLOW and OPTIFEED intake systems ensure a controlled and consistent crop flow to the bale chamber.

OPTIFLOW - OPEN THROAT

The OPTIFLOW open throat intake has an unrestricted intake unit. In heavier conditions, like big wide straw or silage swaths, the top roller acts like a precompactor and is powered by the primary driveline of the baler. There are no fingers or rotor tines which can hinder the flow and therefore limit the intake capacity. This generates huge input potential and can prevent blockages.



OPTIFEED ROTOR

The OPTIFEED rotor design, with single feeding tines and integrated augers helps even out the swath by spreading the crop evenly for consistent bales every time.



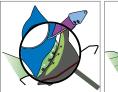
CUTTING VERSIONS

The KUHN OC cutting systems, with elliptical shaped rotor tines, are acknowledged by users as one of the best cutting systems on the market. The silage is guided and drawn down to the knives from an early stage which improves flow and cutting performance and also prevents unnecessary blockages.













OPTICUT 14

The 14-knife OPTICUT system is designed to even out the swath and force-feed the crop into the baler. The 14-knives provide a theoretical cutting length of 70 mm and each single knife is spring protected against damage from foreign objects. GROUP SELECTION offers a choice of 0, 4, 7, 7, or 14 knives in operation.



OPTICUT 23

The 23-knife OPTICUT system has the benefits of intensive cutting and mechanical protection. This cutting system provides a theoretical cutting length of 45 mm and each single knife is spring protected. The 23-knife OPTICUT GROUP SELECTION offers a choice of 0, 7, 11, 12, or 23 knives in operation.

The VB 3165-3195s & BalePack models also have mechanical GROUP SELECTION for easy knife changing and improved driver comfort.



FOR YOUR CONVENIENCE...







DROPFLOOR

The floor and knives can be hydraulically lowered from the comfort of the tractor cab in the case of a rotor blockage. After the blockage is cleared, they can easily be brought back into the work position.

ROTOR DISENGAGEMENT

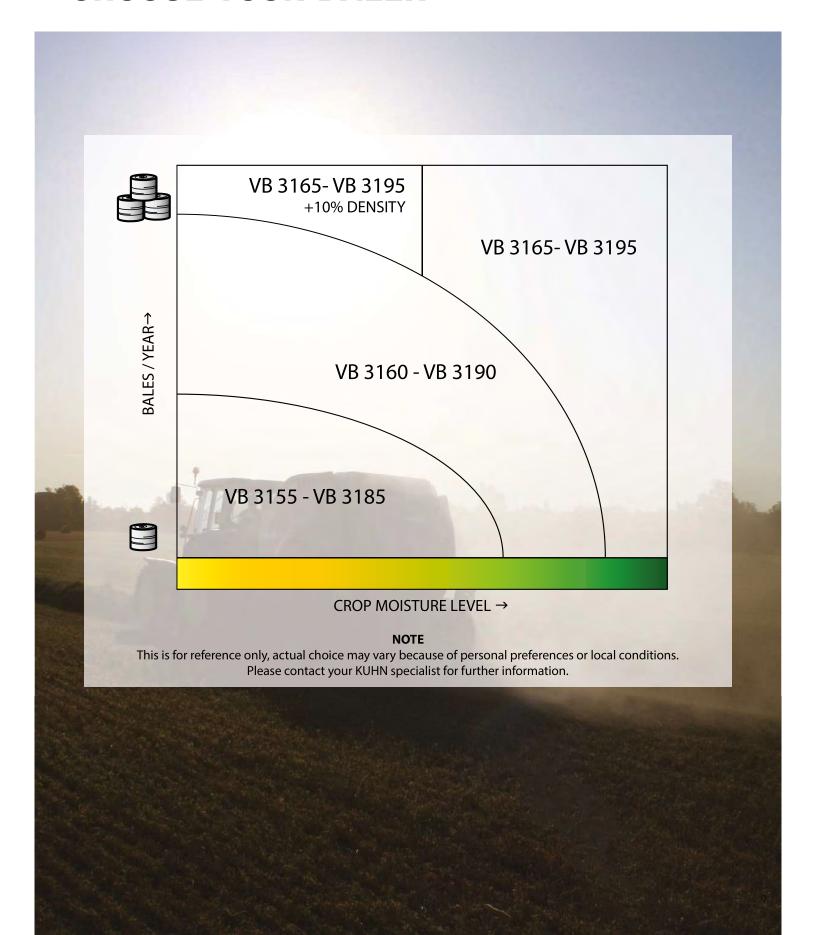
You can manually disengage the rotor drive from the bale chamber drive when dropping the floor is not sufficient to remove the blockage. This will enable the operator to bind and eject the bale from the chamber before continuing.

Both the rotor disengagement and DROPFLOOR technology ensures a fast clearance of a blockage and enables you to quickly continue your baling operation quickly.





CHOOSE YOUR BALER



THE IMPORTANCE OF BALE SHAPE

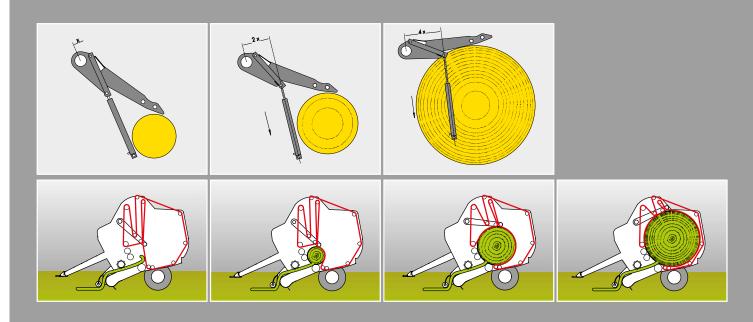
Consistent, perfectly shaped bales represent quality in every form. Firm, round bales indicate that the majority of air has been removed, improving feed quality preservation!

PROGRESSIVE DENSITY - THE KUHN SOLUTION

The PROGRESSIVE DENSITY system has proven its value on all KUHN VB balers. The system increases tension as the bale grows providing a firm bale with a tough outer shell.

HOW DOES IT WORK?

As the bale grows within the bale chamber, the belt tensioning arm is subjected to steadily increasing resistance from two hydraulic cylinders and a spring tensioner. As the diameter increases, the bale's density does too. The result is a very firm bale with a moderate core – not too soft, not too hard. With a tougher outer layer, straw bales will be more tolerant to bad weather conditions, while silage bales will maintain their shape for improved stacking and easier handling.



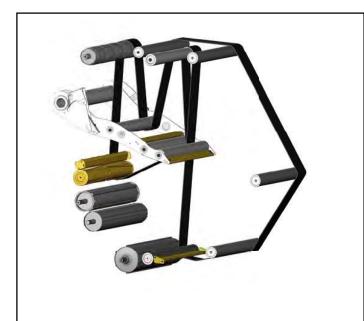
FAST, PERFECT BALE FORMATION

The 5 belt, 3 roller design of the VB 3100 series bale chamber ensures fast, consistent bale formation whatever the intake system. The aggressive profile of the top chamber roller improves crop contact and reduces crop loss. The front segment of the baler is fitted with a large smooth roller and driven cleaning roller that prevents crop build up at the front of the machine.

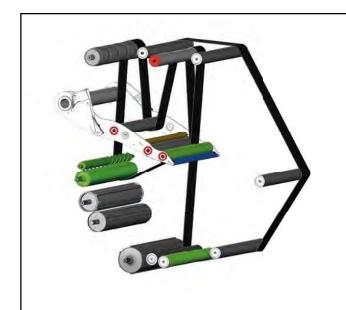
The unique mix of the KUHN PROGRESSIVE DENSITY system and smart bale chamber design guarantees perfect bale formation every time.



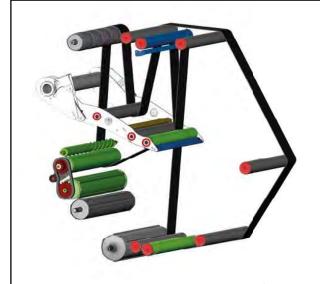
10



VB 3155 - VB 3185						
BALE FORMATION	5 BELTS + 3 ROLLERS					
BELTS	LACED OR ENDLESS					
MAXIMUM BALING PRESSURE	200 BAR					
PRESSURE SETTING	PROPORTIONAL VALVE FOR IN-CAB PRESSURE AND SOFT CORE SETTING					



VB 3160 - VB 3190						
BALE FORMATION 5 BELTS + 3 ROLLERS						
BELTS	ENDLESS					
MAXIMUM BALING PRESSURE	200 BAR					
PRESSURE SETTING	PROPORTIONAL VALVE FOR IN-CAB PRESSURE AND SOFT CORE SETTING					
BELT GUIDE ROLLERS	TENSION ARM & TOP CHAMBER ROLLERS HEAVY DUTY BEARINGS AND SEALS					
CHAIN OILER	MASTER LUBRICATION CHAIN OILER					



Higher bale pressure settings can provide up to 10% more bale weight in dry crops.

VB(P) 3165 - VB(P) 3195					
BALE FORMATION	5 BELTS + 3 ROLLERS				
BELTS	ENDLESS + SECOND DRIVE ROLLER				
MAXIMUM BALING PRESSURE	235 BAR + LOW DENSITY KIT				
PRESSURE SETTING	PROPORTIONAL VALVE FOR IN-CAB PRESSURE AND SOFT CORE SETTING				
BELT GUIDE ROLLERS	ALL BELT GUIDE ROLLERS HAVE HEAVY DUTY BEARINGS AND SEALS				
CHAIN OILER	BEKA MAX CONTINUOUS CHAIN OILER				

FIRM BALE SHAPE

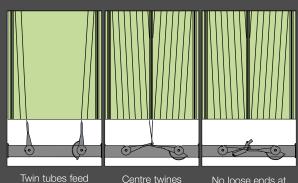
One of the final steps in creating the perfect bale is the binding. It is one of the most crucial steps! The less time required to bind the bale, the higher the baling operation output. KUHN binding solutions guarantee reliable and secure net binding.



EXCELLENT NET SPREADING

The net binder with active stretch technology ensures a firm bale shape with constant net tension throughout the entire binding cycle. The net is fed into the front of the bale chamber to ensure it is taken by the bale immediately. A second net roll storage enables the operator to carry a sufficient net supply for a longer working day. Changing of the net roll can be done easily whilst standing safely on the ground.

KUHN's innovative design maintains constant net tension during the binding process. The net wrap system runs at 90% of the bale's rotational speed to be able to stretch the net without breaking it. After leaving the bale chamber the bale will not expand and therefore it will hold its density. The net binding system spreads the net to the corners of the bale to prevent air pockets once the bale is wrapped, which will help to preserve the forage quality for longer.



Twin tubes feed twine simultaneously

overlap

No loose ends at edge of bale

TWINE BINDING

When using the double twine binding system, the binding cycle time is reduced to a minimum. In the twine binding cycle both of the twines start at the bale edge and overlap before moving to the centre of the bale. In the centre of the bale they overlap again, this ensures the twines are fixed and that there are no loose ends.

When required, the VB and VBP also can be equipped with a combination of twine and net binding.

ELECTRONICS

INTUITIVE USER INTERFACES

The key to achieving the productivity you expect from your KUHN machine, is the user interface. We listened carefully to the users of our machines to develop our new user interfaces and terminals. The objective is to have a clear view of what your machine is doing at anytime, and to have all important settings at your fingertips. This ensures that you have full control of your machine.







VT 30

The VT 30 terminal controls the baling and binding process all from the tractor cab. The 3.5" inch colour screen provides the same user interface as the other KUHN balers, making it an easy to understand control box for all drivers. The VT 30 is equipped with both touchscreen and soft keys for intuitive control under all circumstances. It is connected to the tractor using a 3-pin connector.

CCI 50

The Premium VB models are fully ISOBUS compatible. This means the intuitive user interface can be displayed on all VT terminals. The CCI 50 is a full ISOBUS terminal with a 5.6" inch colour screen. It can be controlled using the touch screen and/or the soft keys. A selection of CCI Apps can be used on the CCI 50 to utilise your terminal all year round.

CCI 1200

The CCI 1200 is our state of the art ISOBUS terminal. The 8.3" colour touchscreen has a programmable view. For example, you can see both the camera and the machine user interface on the same screen. It offers wide compatibility with CCI Apps and can be your portal to precision farming. The CCI 1200 comes in a storage box for it to be stowed away securely when not in use.



ELECTRONICS				
	VB 3155 - 3185	VB 3160 - 3190	VB 3165 - 3195	VBP 3165 - 3195
VT 30 - NON ISOBUS COMPATIBLE	•			
CCI 50 - ISOBUS COMPATIBLE		•	•	•
CCI 1200 - ISOBUS COMPATIBLE		•	•	•

FULL VISIBILITY

The VB / VBP range can be equipped with a KUHN camera system to provide optimal visibility and safety around the machine. There are 2 kits available, one kit is compatible with the CCI terminal, the other one consists of a separate monitor and a camera.





TWO TECHNOLOGIES COMBINED

Two technologies from KUHN combined in one machine - the KUHN VBP BalePack. This high capacity easy-to-use machine is capable of working on even the steepest slopes, in all crop conditions.

RAPID AND SECURE BALE TRANSFER

To minimise idle time and maximise output, a rapid bale transfer is required. The side guide protection plates on the KUHN VB BalePack ensure a rapid and secure bale transfer even when working in steep or sloping fields. The 4-belt wrapping table with 2 large rollers and 4 side cones provide maximum bale traction, bale rotation and proper film overlap, regardless of the bale shape.

TWIN LOADING FORK SYSTEM OFFERS FASTER BALE TRANSFER BY UP TO 40%.

The first loading fork (in red) collects the bale as it leaves the bale chamber. The wrapping table is tilted forward; ready to receive the bale.

Advantage: There is no possibility for the bale to roll off the rear of the wrapping table when facing up a steep slope.

The second loading fork (in blue) transfers the bale onto the wrapping table. The tailgate shuts automatically, with the second loading fork still in a raised position.

Advantage: This saves time and also prevents any chance off the bale rolling forward into the tailgate when facing downhill.

The wrapping table returns to its horizontal position and the second loading fork is lowered. The bale lies on the wrapping table supported by four wide belts and four lateral guide rollers.

Advantage: Regardless of the bale shape, the table offers good support and allows perfect wrapping.

The INTELLIWRAP wrapping system with closely mounted pre-stretchers rapidly wraps the bale, either in conventional or (optional) 3D mode.

Advantage: Vertically mounted pre-stretch units ensure no grass gets caught between the layers of film during the wrapping process. This results in effective sealing between film layers for the highest possible silage quality preservation.

The low mounted table allows the wrapped bale to be gently ejected while driving, either manually or automatically.

Advantage: When working on sloping ground, the wrapped bale can be ejected while the net or twine is being applied on the following bale, saving time and increasing output potential.











FULLY AUTOMATIC ROTOR DEBLOCK SYSTEM

The balers overload protection clutch activates whenever the balers intake gets obstructed by the amount of crop to be fed in. The DROPFLOOR automatically* lowers and the knives are retracted. The operator can monitor the ongoing process via the terminal. After the PTO is re-engaged, the rotor restarts and the crop is guided unobstructed into the bale chamber, the DROPFLOOR and knives automatically return into position.



FULLY AUTOMATIC KNIFE CLEANING

The OPTICUT knives are automatically cleaned after a predefined number of bales has been reached in the program. This will keep the knife slots clean for easier removal of the knives at the end of the working day.

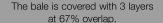
FULL WRAPPING FLEXIBILITY



Get full wrapping flexibility with INTELLIWRAP. Continuous control the film overlap and required amount of wrapping layers $(4, \underline{5}, 6, \underline{7}, 8, \underline{9}...)$ to match your local circumstances, crop conditions, and storage periods. An excellent distribution of the film around the bale and precise overlap of the film provides maximum efficiency and prolonged silage quality preservation.

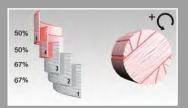
5 LAYER FILM SELECTION







The bale rotation speed is increased.



Final 2 layers at 50% overlap.

DISCOVER THE ADVANTAGES OF BOTH INTELLIWRAP AND 3D WRAPPING IN ONE MACHINE

KUHNs' 3D wrapping distributes the total film quantity more uniformly and efficiently across the entire surface of the bale.



3D wrapping starts by covering the corners of the bale.



Further wrapping of the cylindrical surface of the bale until approximately 80% is covered.



Switches to conventional wrapping for 100% film coverage.

3D wrapping will first apply the film where it is most needed, the corners of the bale. After finishing the complete 3D wrapping cycle, approximately 80% of the bale is already covered in film. Then the conventional wrapping will make sure that 100% of the bale is covered with stretch film. The film has a perfect oxygen barrier because all layers are glued together with tack. The cylindrical wrap ensures that the bale retains its shape, even after long storage periods.

USE OF BOTH INTELLIWRAP AND 3D WRAPPING PROVIDES WELL-SHAPED, TIGHTLY SEALED BALES AND WILL MAINTAIN SILAGE QUALITY OVER LONGER STORAGE PERIODS.



OVERVIEW VB 3155 - 3185

MACHINE HIGHLIGHTS



Robust driveline with high quality IWIS chains



OPTIONS



16





Diverse tyre options Balekicker Chain lubrication

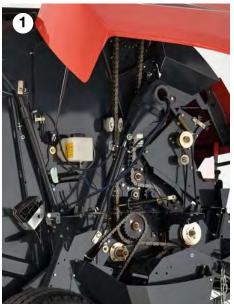




VT 30 control box

OVERVIEW VB 3160 - 3190

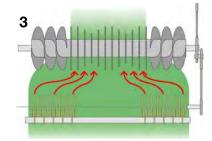
MACHINE HIGHLIGHTS



Robust driveline with high quality IWIS chains



Pendulum pick-up



INTEGRAL ROTOR Technology



OPTIONS



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Second belt driven roller

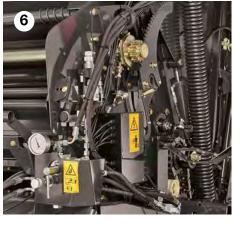
Balekicker



Mechanical rotor disengagement



Heavy duty cross joints in the drive axles



Proportional valve for in-cab density control







CCI 50 / CCI 1200 Control box

OVERVIEW VB(P) 3165 - 3195

MACHINE HIGHLIGHTS



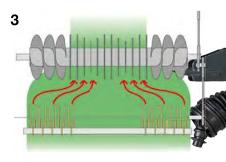
Separate knife / DROPFLOOR controlled from the tractor cab

Sturdy and wide oil brushes on the chains ensure perfect lubrication





Pendulum pick-up



INTEGRAL ROTOR Technology



OPTIONS







Diverse tyre options

Balekicker



Heavy duty cross joints in the drive axles



Proportional valve for in-cab density control



Robust driveline with high quality IWIS chains + 11/4" **20BH** primary driveline with chrome hardened pins





Beka Max continuous chain oiling system



Large crop roller (Ø 217 mm)





CCI 50 / CCI 1200 Control box



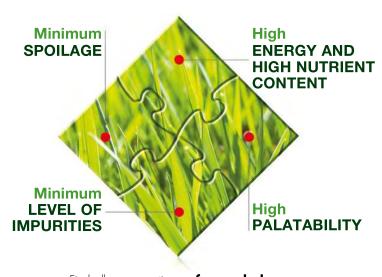
SIMPLY GREAT FORAGE!

Did you know that you can save concentrates worth 89 €/ha a year, just by reducing the impurities in the forage from 4 to 2 %*? We are here to help you produce top quality forage.

We would like to pass on several decades knowledge of forage production. We can provide advice for you to produce first-class animal feed and help you to understand the advantages of our machines in order for you to use them in an optimal way to preserve the quality of your forage.

*Source: Agricultural chamber Weser-Ems, Germany.

With KUHN expertise, you will harvest forage with...



Find all our expertise on forage.kuhn.com.



KUHN PARTS

DESIGNED AND MANUFACTURED TO STAND THE TEST OF TIME



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













Specifications	vi	B 3155 - 3	185	\	B 3160 - 3	190	v	B 3165 - 3	195	VRD 211	65 - 3195		
					1								
	OPTIFLOW	OPTIFEED	OPTICUT 14	OPTIFLOW	OPTIFEED	OPTICUT 14	OPTIFEED	OPTICUT 14	OPTICUT 23	OPTICUT 14	OPTICUT 23		
Bale dimensions			-										
Diameter - cm	80 - 160 / 185			8	0 - 160 / 18	35	3	30 - 160 / 18	35		0 / 185		
Width - cm		120			120			120		1;	20		
Pick-up	040		00	040		00		000		0.	20		
Pick-up width - cm	210		30	210		30		230		230			
Number of tine rows		4 rows		4 rows		ows		5 rows		5 rows			
Tine spacing - mm		61			61		61		61				
Short crop pick-up roller		Standard		Standard		Standard (Ø 217 mm)			Standard (Ø 217 mm)				
Pneumatic gauge wheels		•			•			•		•			
Pivoting guide wheels		<			<			<					
Bale chamber			l			l				C 1-14-	0 !!		
Bale formation	51	pelts + 3 rol	iers	51	oelts + 3 rol	iers	5 belts + 3 rollers		ers	5 belts + 3 rollers 215			
Belt width - mm		215			215		Fadler	215					
Belts	Laced or Endless		Endless		Endless belts and second drive roller standard		Endless belts and second drive roller standard						
Intake						0 111							
Intake unit	Open Throat	Rotor	Cutting Rotor	Open Throat	Rotor	Cutting Rotor with double tines	Rotor	Cutting Rotor with double tines		Cutting Rotor with double tines			
Rotor tines made out of HARDOX wear plates	-	-	-	-	•	•	•	•	•	*			
Theoretical cutting length - mm	-	-	70	-	-	70	-	70	45	70	45		
Knife protection	-	-	Individual spring	-	-	Individual spring	-	Individual spring	Individual spring		Individual spring		
GROUP SELECTION	-	-	-	-	-	-	-	•	•	•	•		
Rotor disengagement	-	Ma	nual	-	Ma	inual	-	Ma	nual	Ma	nual		
DROPFLOOR	-	-	-	-	\Diamond	•	•	•	•	*	•		
Automatic rotor DEBLOCK													
system	-	-	-	-	-	-	-	-	-	•	•		
Automatic knife cleaning	-	-	-	-	-	-	-	-	-	•	•		
Binding	Twine	, Net, Twine	& Net	Ne	et, Twine & I	Net	N	et, Twine & N	Vet	Net, Twi	ne & Net		
Double twine wrap/capacity		◆ /8			-		-		-				
Net binding/capacity		<>/1+2			◆ /1+2		◆ /1+2		◆ /1+2				
Net and twine/capacity		<>/1+1/8			<>/1+1/8		<>/1+1/8			<>/1+1/8			
Operation													
Control system		VT 30			ISOBUS		ISOBUS		ISOBUS				
Bale pressure setting		Terminal			Terminal			Terminal		Terminal			
Independent knife/ DROPFLOOR selection	-	-	Manual (on baler valve)	-	-	Manual (on baler valve)	-	Terminal		Terminal			
Wrapping unit													
3D wrapping							-						
Film end/break sensor		-			-		-		•				
Tyres													
11.5/80-15.3		•											
15.0/55-17		\Diamond		•									
19.0/45-17		\Diamond			\Diamond								
500/45-22.5					\Diamond		•		◆ (tandem axle)				
500/45R22.5 FL639M													
Hydraulic/pneumatic brakes		<			/			/		•	<i>l</i> ⇔		
Machine dimensions													
Length - cm		402		402		402		650					
Width - cm		246			246		246		298				
Height - cm		267 / 287	1		267 / 287		267 / 287			/ 287			
Weight - kg	≥ 2.500	≥ 2.900	≥ 3.050	≥ 2.540	≥ 3.040	≥ 3.240	≥ 3.220	≥ 3.420	≥ 3.470		5.650		
Minimum tractor requirement*	45 kW (62 hp)	50 kW (67 hp)	60 kW (80 hp)	45 kW (62 hp)	50 kW (67 hp)	60 kW (80 hp)	45 kW (62 hp)	50 kW (67 hp)	60 kW (80 hp)		kW hp)		

standard <> option -= not available
 + Horsepower requirement may vary with different crops, conditions, and options used. Consult operators manual for proper tractor sizing.

DESIGNED BY KUHN, MADE BY KUHN

Check out KUHN's complete full-liner range in bale equipment



1. Fixed Balers - 2. Fixed BalePacks - 3. i-BIO+ - 4. Large Square Balers - 5. + 6. Round and Square Bale Wrappers.

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



Visit us on our YouTube channels.



Your KUHN dealer

KUHN NORTH AMERICA, INC.

1501 West Seventh Avenue - Brodhead, WI 53520 - USA

KUHN FARM MACHINERY PTY. LTD

313-325 Foleys Road - Deer Park, VIC, 3023 - AUSTRALIA

KUHN FARM MACHINERY (U.K.) LTD

Stafford Park 7 - GB TELFORD/ SHROPS TF3 3BQ

Information given in this document is only for information purposes and is non-contractual. Our machines are in compliance with regulations in force in the country of delivery, in our literature, and for improved illustration of certain details, some safety devices may not be in operating position. When operating these machines, these devices must be in position in accordance with the requirements indicated in the operator's manuals assembly manuals. Respect the tractor gross vehicle weight rating, its lift capacity and maximul load per axle and tyres. The tractor front axle load must always comply with the regulations of the country of delivery (in Europe, it must reach minimum 20 % of the tractor net weight). We reserve the right to change any designs, specifications or materials listed without further notice. Machines and equipment in this document can be covered by at least one patent and/or registered design. Trademarks cited in this document may be registered in one or several countries.