Variable Chamber Round Balers

VB SERIES



www.kuhn.com





TAKE ROUND BALING TO A NEW LEVEL



KUHN is offering a new generation of round balers enabling you to meet the challenges of tomorrow.

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 EXPERIENCE

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 drawing on a wealth of knowledge and skills.

THE BALER SPECIALIST

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





MODEL	ø 80 - 160	Ø 80 - 185
VB 3155	X	
VB 3185		X
VB 3160	X	
VB 3190		X
VB 3165	X	
VB 3195		X
VB 7160	X	
VB 7190		X



DESIGNED BY KUHN, MADE BY KUHN

INTRODUCING THE VB SERIES

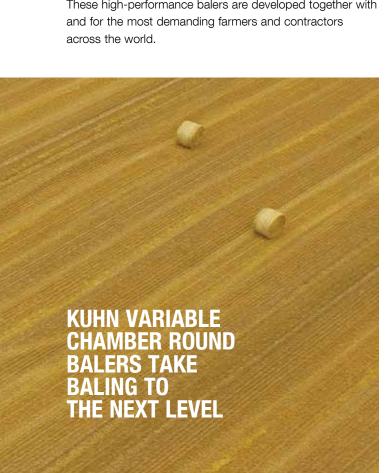
KUHN variable chamber round balers take baling to the next level. The VB series offers a wide range of variable chamber round balers to match your individual preferences. KUHN variable chamber round balers are developed with the latest product innovations to ensure farmers and contractors worldwide get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

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

The VB 3160 and 3190 All-round models are designed for baling a wide range of forage materials, including silage.

The KUHN VB 3165 and 3195 Premium models are designed to work in the toughest conditions across the world and are ideal for customers who need extra density in straw.

With the VB 7160 and 7190 High-performance models you can rely on a constant high performance in all circumstances. These high-performance balers are developed together with and for the most demanding farmers and contractors





VB 3155 - 3185



VB 3160 - 3190 ALL-ROUND



VB 3165 - 3195 PREMIUM



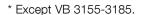
VB 7160 - 7190 HIGH PERFORMANCE

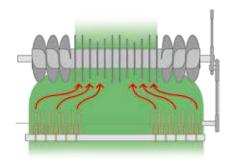


KUHN VB balers guarantee optimal crop intake. Its wide cam-track pick-up unit provides maximum ground adaption when combined with its pendulum capabilities enabling it to work in the toughest conditions.

INTEGRAL ROTOR

Available across the entire VB range, our INTEGRAL ROTOR technology can be found on OPTIFEED and OPTICUT models. 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 has rotor tines made out of Hardox® wear plates*. Hardox® combines extreme hardness and toughness to reduce rotor tine wear.







INTAKE TYPE				
	VB 3155 - 3185	VB 3160 - 3190	VB 3165 - 3195	VB 7160-7190
DIRECT FEEDING SYSTEM - Open throat	•	•		
OPTIFEED - Without cutting device	•	(Optional DROPFLOOR)	(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

INTAKE PERFORMANCE

NON-CUTTING VERSIONS

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

DIRECT FEED

The DIRECT FEED system has an unrestricted intake. In heavier conditions, like big wide straw or hay swaths, the top roller performs like a pre-compactor and is powered by the primary driveline of the baler. There are no fingers or rotor tines which can disturb the flow and therefore limit the intake capacity. This generates a 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

KUHN OPTICUT (OC) cutting rotors are designed for unlimited intake capacity and excellent cutting quality. OC cutting rotors, 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 while requiring minimal force - this also prevents unwanted blockages.













OPTICUT 14

The INTEGRAL ROTOR, with the 14-knife OPTICUT system, is designed to even out the swath and force-feed the crop into the baler for maximum throughput. The 14-knife OPTICUT cutting system provides a theoretical cutting length of 70 mm. Each single knife is spring-protected against damage from foreign objects. With GROUP SELECTION*, the operator can choose to have 0, 4, 7, 7 or 14 knives in operation.



OPTICUT 23

The INTEGRAL ROTOR, with the 23-knife OPTICUT system, has the benefits of intensive cutting and mechanical protection. The 23-knife OPTICUT system provides a theoretical cutting length of 45 mm. Each single knife is spring-protected against damage from foreign objects. With GROUP SELECTION*, the operator can choose to have 0, 7, 11, 12 or 23 knives in operation.



GROUP SELECTION also results in easy knife changing and improved driver comfort.

^{*} Available for VB 3165 - 3195 and VB 7160 - 7190.



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 work position.



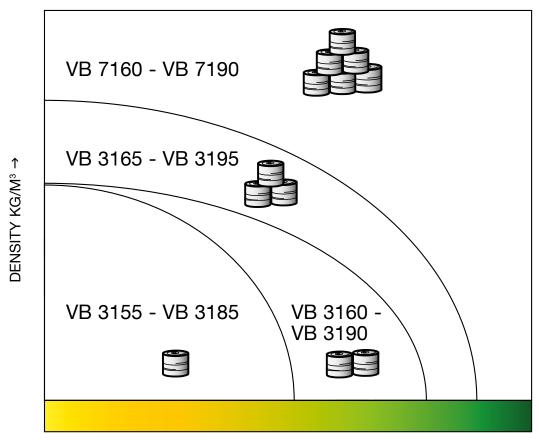
ROTOR DISENGAGEMENT

In extreme circumstances, double security is provided by a standard rotor disengagement clutch. 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 in case of a blockage and enables you to quickly continue your baling operation.







CROP MOISTURE LEVEL →

NOTE

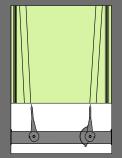
This is for reference only, actual choice may vary because of personal preferences or local conditions. Please contact your KUHN specialist for further information.



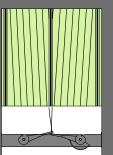
EXCELLENT NET SPREADING

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.

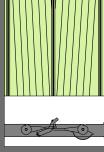
KUHN's innovative design maintains constant net tension during the binding process. The net wrap system runs at 90% of the bale's rotational speed to be able to stretch the net without breaking it. After leaving the bale chamber the bale will not expand and therefore it will hold its density. The net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



Twin tubes feed twine simultaneously



Centre twines



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 can be equipped with a combination of twine and net binding.

INTUITIVE USER INTERFACES

The key to achieving the productivity you expect from your KUHN machine, are the user interfaces. 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" 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 a touchscreen and soft keys for an intuitive control under all circumstances. It is connected to the tractor using a 3-pin connector.

CCI 800

The CCI 800 sets new standards in the operation of modern ISOBUS machines. The touchscreen in conjunction with the operating concept of CCI.OS is easy to operate. With its 8" widescreen display, the CCI 800 offers the optimal size to focus on one application. For additional user-friendliness, the CCI 800 can work in split screen mode to display two additional applications without overlapping the main application.

CCI 1200

The CCI 1200 is our state of the art ISOBUS terminal. The 12.1" 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 so you can stow it away securely when not in use.



ELECTRUNICS				
	VB 3155 - 3185	VB 3160 - 3190	VB 3165 - 3195	VB 7160 - 7190
VT 30 - NON ISOBUS	•	•		
CCI 800 - ISOBUS COMPATIBLE		•	•	•
CCI 1200 - ISOBUS COMPATIBLE		•	•	•

FULL VISIBILITY

The VB 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.







THE IMPORTANCE OF BALE SHAPE

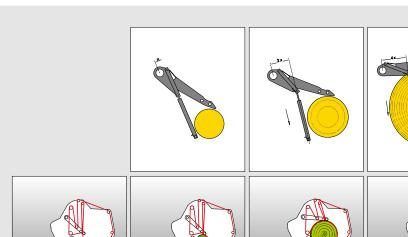


PROGRESSIVE DENSITY - THE KUHN SOLUTION

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?

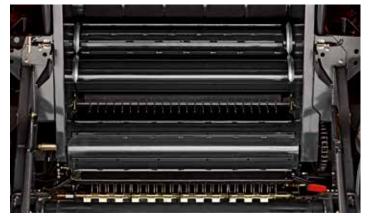
As the bale grows within the bale chamber, the belt tensioning arm is subjected to steadily increasing resistance from two hydraulic cylinders and a spring tensioner. So as the diameter increases, the bale's density does too. The result is a very firm bale with a moderate core – not too soft, not too 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.

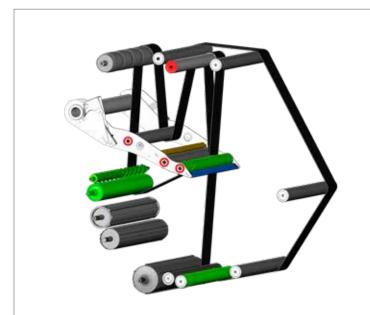
The unique mix of the KUHN PROGRESSIVE DENSITY system and smart bale chamber design guarantees perfect bale formation every time.



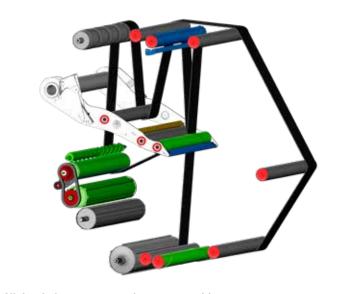
VB 3100 bale chamber



VB 3155 - 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 - 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 BEARINGS AND SEALS					
CHAIN OILER	BEKA-MAX CONTINUOUS CHAIN OILER					



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

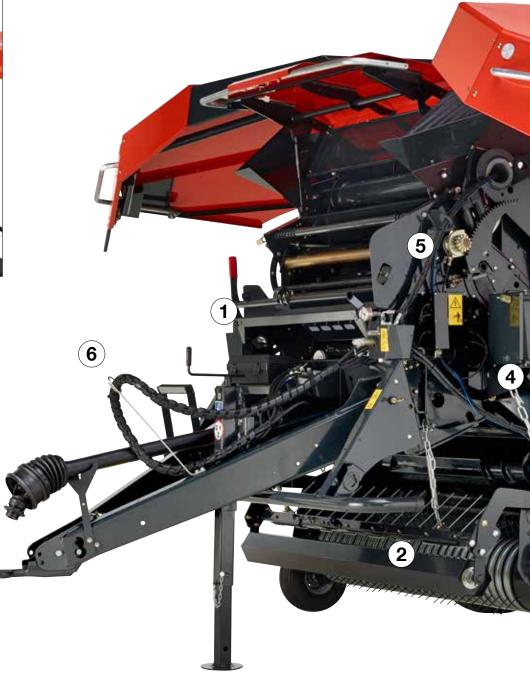
VB 3165 - 3195							
BALE FORMATION	5 BELTS + 3 ROLLERS						
BELTS	ENDLESS + SECOND DRIVE ROLLER						
MAXIMUM BALING PRESSURE	235 BAR INCLUDING + LOW DENSITY KIT						
PRESSURE SETTING	PROPORTIONAL VALVE FOR IN-CAB PRESSURE AND SOFT CORE SETTING						
BELT GUIDE ROLLERS	ALL BELT GUIDE ROLLERS HAVE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

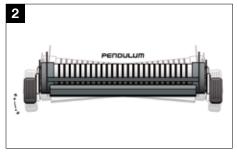
OVERVIEW VB 3155 - 3185

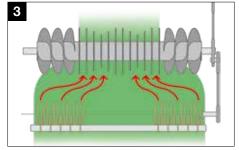
MACHINE HIGHLIGHTS



Robust driveline with high-quality IWIS chains







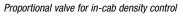


INTEGRAL ROTOR Technology Mechanical rotor disengagement

OPTIONS









VT 30 control box

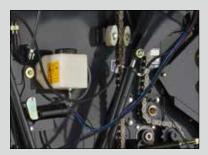








Bale kicker



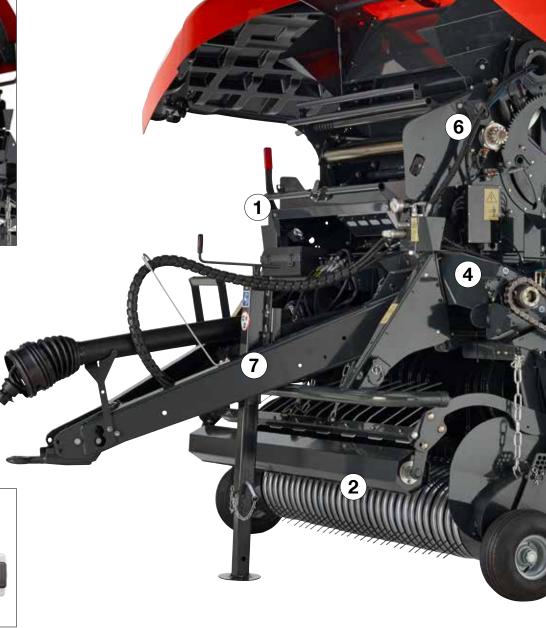
Automatic chain oiling system

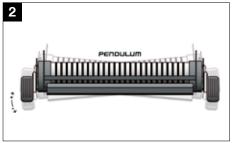
OVERVIEW VB 3160 - 3190

MACHINE HIGHLIGHTS

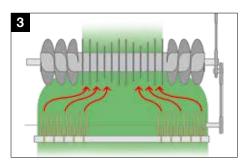


Robust driveline with high-quality IWIS chains





Pendulum pick-up



Mechanical rotor disengagement



Heavy-duty cross joints in the drive axles

OPTIONS





Proportional valve for in-cab density control



BEKA-MAX continuous chain oiling system





Bale kicker



Second belt driven roller



VT 30 control box



CCI 800 Control box



CCI 1200 Control box

OVERVIEW VB 3165 - 3195

MACHINE HIGHLIGHTS

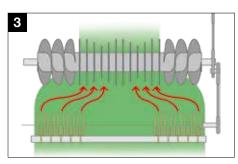


Second belt driven roller guarantees a secure belt drive in all crop conditions



Pendulum pick-up

2



Separate knife / DROPFLOOR controlled from the tractor cab



Sturdy and wide oil brushes on the chains ensure perfect lubrication

OPTIONS





Heavy crop roller with a windguard (Ø 217 mm)



BEKA-MAX continuous chain oiling system



Robust driveline with high quality IWIS chains + 1½" 20BH primary driveline with chrome hardened pins



Heavy-duty cross joints in the drive axles



Proportional valve for in-cab density control





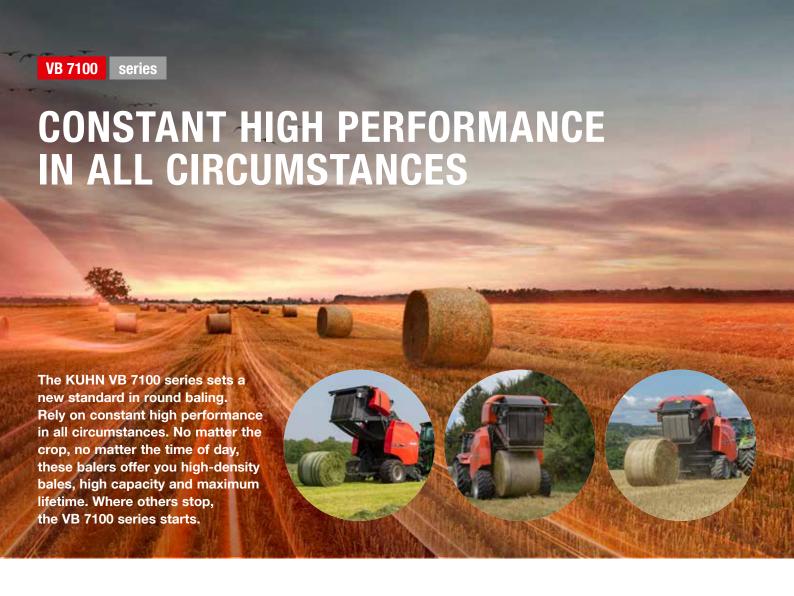
Bale kicker



CCI 800 Control box



CCI 1200 Control box



HIGH-DENSITY BALES

Produce bales with densities of up to 140 kg/m³ in straw thanks to the KUHN patented* i-DENSE system. This intelligent twin-tension arm system ensures an optimal tension distribution. The front tension arm creates the optimal starting chamber and bale form in all circumstances. The rear tension arm creates a high belt tension for rock-hard bales.

The twin-tension arm system in combination with the measurements of the moisture sensor, automatically adapts the baling pressure according to the different crops and crop conditions, without the interference of the driver. Resulting in the most economical use of your baler without compromising on performance.

*Patent or patent pending in one or more countries.



MAXIMUM LIFETIME, MINIMUM DOWNTIME

Extreme durability of components, minimum downtime for maximum baling time. Thanks to its heavy-duty design, the balers provide you the robustness and reliability you need. 4 belts ensure optimal track and bale formation. Wear resistant and oversize chains are oiled with an automatic continuous chain oiling system. The rotor tines are made out of Hardox® wear plates.

50 mm spherical roller bearings are fitted on the main driven rollers and special KUHN patented* seals on the idling rollers. These seals, consisting of a unique combination of specially developed rings, keep crop contamination away from the bearings.



HIGH CAPACITY THROUGHOUT THE ENTIRE OPERATION

As from the pick-up towards the bale kicker, the VB 7100 is developed to provide you the highest capacity for maximum efficiency. Silage, hay or straw, the baler offers you a capacity of up to 30 t/hour in various circumstances.

Thanks to the unique mix of the i-DENSE system and the proven 4 belt + 3 roller design of the bale chamber, the baler offers fast, secure and consistent bale formation in any crop condition, even in silage. The KUHN invented INTEGRAL ROTOR ensures the best possible crop flow. The net binder with active stretch technology guarantees a consistent net tension and sturdy bale shape.

On top of that, the VB 7100 balers feature the fastest tailgate operation in the market. Within 4 seconds the bale is ejected and the tailgate is closed again.

	VB 7160 - 7190				
	BALE FORMATION	4 BELTS + 3 ROLLERS			
	BELTS	HEAVY-DUTY ENDLESS BELTS + SECOND DRIVE ROLLER			
	PRESSURE SETTING	AUTOMATIC WITH PRE-SETTINGS (I-DENSE)			
	BELT GUIDE ROLLERS	HEAVY BEARINGS AND BEARING HOUSES WITH PATENTED* SEALS FOR HIGH OPERATIONAL SECURITY			
	CHAIN OILER	BEKA-MAX CONTINUOUS CHAIN OILER			
	GREASING SYSTEM	OPTIONAL FULLY AUTOMATIC GREASING SYSTEM WITH RESERVOIR			

EVERYTHING FOR YOUR CONVENIENCE

Just focus on driving while your baler takes control of the density and the power consumption, yet another advantage of the i-DENSE system. All this, including the moisture indication and many other data points, can be monitored on the ISOBUS display terminal. Switching between the different sets of knives is easy when using KUHN's proven GROUP SELECTION technology.

The net binding system facilitates loading from both sides of the machine. Thanks to the new KUHN patented* support brackets, you can slide the net easily from the net storage into the net binder without lifting the entire roll. Moreover, you can load the net roll whilst standing safely on the ground.

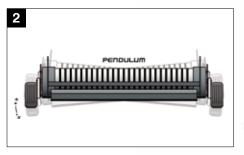


OVERVIEW VB 7160 - 7190

MACHINE HIGHLIGHTS



Second belt driven roller guarantees a secure belt drive in all crop conditions

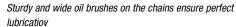


Pendulum pick-up











Heavy crop roller with wind guard (Ø 217 mm)

OPTIONS:





Robust driveline with wear-resistant and oversized chains



The patented* i-DENSE system automatically adapts the baling pressure based on moisture sensor measurements



KUHN patented* seals on the idling rollers



BEKA-MAX continuous chain oiling system



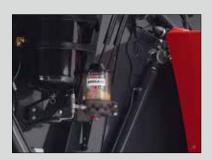
Net roll support brackets

*Patent or patent pending in one or more countries.





Bale kicker



Automatic greasing system



CCI 800 Control box



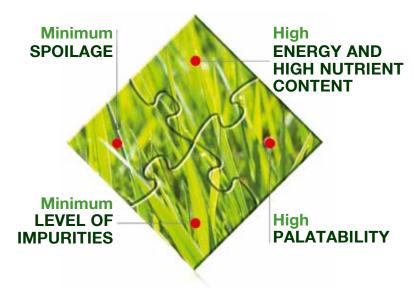
CCI 1200 Control box



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.

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



*Source: Agricultural chamber Weser-Ems, Germany.

Find all our expertise on forage. KUHN.com/en



KUHN PARTS

DESIGNED AND MANUFACTURED TO 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.













	VI	B 3155 - 3	185	VB 3160 - 3190			VB 3165 - 3195			VB 7160 - 7190				
	DIRECT FEED	OPTIFEED	OPTICUT 14	DIRECT FEED	OPTIFEED	OPTICUT 14	OPTIFEED	OPTICUT 14	OPTICUT 23	OPTIFEED	OPTICUT 14	OPTICUT 2		
Bale dimensions														
Diameter (m)	0.80	0 - 1.60 /	1.85	0.80	0 - 1.60 /	1.85	0.8	30 - 1.60 / ·	1.85	0.8	0 - 1.60 /	1.85		
Width (m)	1.20		0.0	1.20		0.0	1.20		0.0	1.20				
Pick-up		1.20			1.20			1.20			1.20			
Pick-up width (m)	2.10	2	.30	2.10	2	30		2.30			2.30			
Number of tine rows	2.10	4	.50											
		61		4	4 5		5			5 61				
Tine spacing (mm)					61		61							
Crop roller with wind guard		Standard			Standard		Heavy (Ø 217 mm)		Heavy (Ø 217 mm)					
Pneumatic gauge wheels		•			•			•			•			
Intake														
Intake unit	OPEN THROAT	Rotor	Cutting Rotor with double tines	OPEN THROAT	Rotor	Cutting Rotor with double tines	Rotor		Rotor with e tines	Rotor Cutting Rotor wit double tines				
Rotor tines made out of Hardox® wear plates	-	-	-	-	*	•	•	•	•		•			
GROUP SELECTION	-	-	-	-	-	-	-	0-4-7- 7-14	0-7-11- 12-23	-	0-4-7- 7-14	0-7-1 12-2		
DROPFLOOR	-	-	-	-	\Diamond	•	•	•	•	•	•	•		
Theoretical cutting length (mm)	-	-	≥ 70	-	-	≥ 70	-	≥ 70	≥ 45	-	≥ 70	≥ 45		
Knife protection	-	-	Indivi- dually spring protected	-	-	Indivi- dually spring protected	-	Individually spring protected		_ Individually spi protected				
Rotor disengagement	-		*	-	•	•	-		~		*			
Bale chamber														
Bale formation	5 b	elts + 3 ro	llers	5 belts + 3 r		llers	5 belts + 3 rollers		4 belts + 3 rollers					
Belts	Laced or Endless		Endless		Endless belts and second drive roller standard		Heavy-duty endless belts and second drive roller standard							
Automatic chain oiling system		\Diamond		•		•		•						
Automatic greasing system with reservoir		-		-		-		⇔						
Binding system														
Twine binding		•		-		-		-						
Net binding				•		•		•						
Net + Twine binding		\Diamond		\Diamond										
Operation														
ISOBUS (CCI 800 / CCI 1200)		-			•			•			•			
VT 30		•				-		-						
Bale pressure setting		Terminal		Terminal		Terminal		Automatic (i-DENSE)						
Moisture sensor				⇒		⇔			•					
Tyres														
300/80-15.3		•			-			-			-			
380/55-17.0		<u> </u>			_		<u>-</u>		-					
480/45-17.0		→			•		<u> </u>		-					
500/45-22.5		<u>-</u>				_								
520/55R22.5		-				_		→						
600/50R22.5				-		-								
				-										
Hydraulic/pneumatic brakes	oiakta	<i>⇔</i> / <i>⇔</i>			<i>\</i>			<i>⇔</i> / <i>⇔</i>			<i>⇔</i> / <i>⇔</i>			
Machine dimensions and w	eigills	4.00			4.00			4.00			F F0			
Length (m)		4.02			4.02		4.02		5.50					
Width (m)*		2.38		2.45		2.68		2.68						
Height (m)		2.67 / 2.87		2.67 / 2.87		2.67 / 2.87		2.90 / 3.20						
Weight min - max (kg)*	2	2800 - 370	00	2	2800 - 3700		2800 - 3700			4200 - 5200				
Power requirements														
Minimum PTO power	47 / 64	55 / 75	62 / 84	47 / 64	55 / 75	62 / 84	55 / 75	62 / 84	77 / 105	80 / 109	88 / 120	99 / 1		

[◆] standard <> option - = not available
*Depending on tyre size and additional options. **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. 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 S.A.S.

4 Impasse des Fabriques - BP 50060, F-67706 Saverne CEDEX - FRANCE

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 and assembly manuals. Respect the tractor gross vehicle weight rating, its lift capacity and maximum 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



