

Baler-wrapper combinations

i-B10+, FBP, VBP



[www.kuhn.com](http://www.kuhn.com)



be strong, be **KUHN**



i-BIO+, FBP, VBP

# MAXIMISE YOUR SILAGE QUALITY AT THE LOWEST COSTS



## OUR CORE VALUES:

### CAPACITY

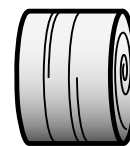
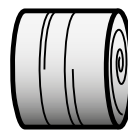
Our goal is to develop machines that will give a boost to the profitability of your company. High output is a key success factor for every baler. KUHN baler-wrapper combinations feature several unique points that will deliver this capacity to your company.

### ROUND BALES

Perfectly shaped, consistent round bales are the end-result what every customer is looking for. With over 30 years of experience in baling and wrapping, our machines can produce high bale densities even in the most demanding conditions.

### RELIABILITY

To achieve a maximum efficiency of your machine, an unmatched reliability is a must. KUHN offers the most efficient and versatile range of balers and wrappers available on the market designed with simple, but efficient techniques. This results in a minimum in down time and a machine that you can trust.



MODEL	Ø 125	Ø 80 - 160	Ø 80 - 185
i-BIO+	X		
FBP 3135	X		
VBP 3165		X	
VBP 3195			X



**i-BIO+, FBP, VBP**

# DESIGNED BY KUHN, MADE BY KUHN

## INTRODUCING OUR RANGE OF ROUND BALER-WRAPPER COMBINATIONS

The KUHN round baler-wrapper combinations have been designed to maximise your silage quality and your return on investment. KUHN offers a wide range of round baler-wrapper combinations to match your individual preferences, perfectly adapted to your circumstances. KUHN round baler-wrapper combinations are developed with the latest product innovations to ensure farmers and contractors worldwide get the maximum benefit.

The i-BIO+ is an ultra compact and lightweight baler-wrapper combination. With its low weight and excellent manoeuvrability the KUHN i-BIO+ is perfectly suited for hilly conditions and the usage on small / wet fields with narrow access gates.

Our FBP 3135 is designed to endure the most heaviest silage conditions across the world. Thanks to its rigid design and unique options, this machine will boost the profitability of your company.

Based on the VB 3100 series, the VBP 3165 and 3195 are our versatility experts. With their unique bale chamber design they provide the best results in a very broad range of crops.



**i-BIO+**



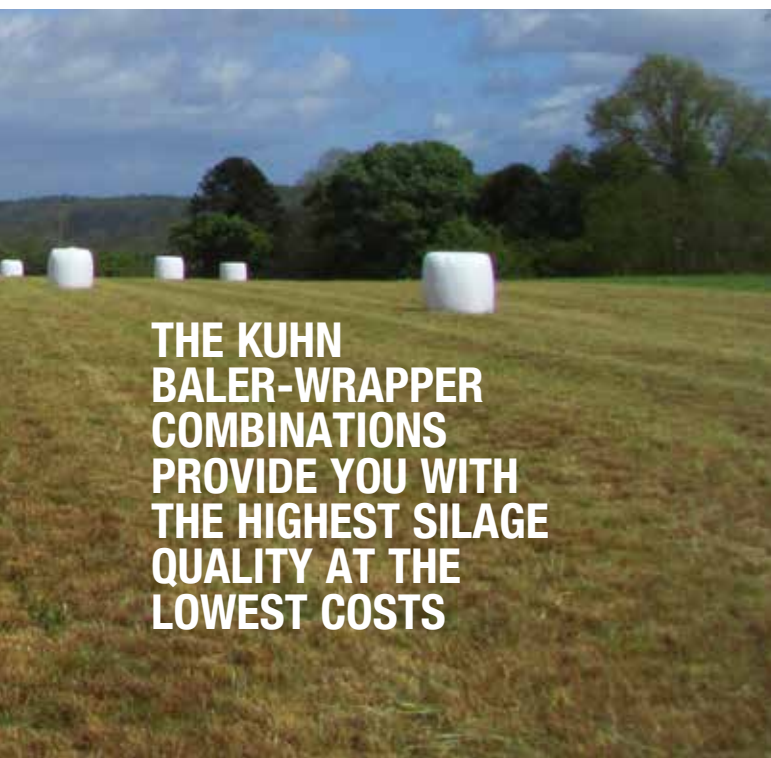
**FBP 3135**



**VBP 3165**



**VBP 3195**



**THE KUHN  
BALER-WRAPPER  
COMBINATIONS  
PROVIDE YOU WITH  
THE HIGHEST SILAGE  
QUALITY AT THE  
LOWEST COSTS**

# CROP FLOW CONTROL

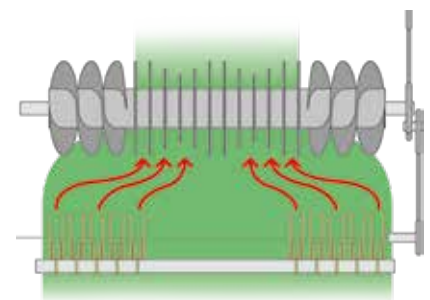


**KUHN balers guarantee optimal crop intake. The wide cam-track pick-up unit on models with rotor intake provides maximum ground adaption when combined with its pendulum capabilities enabling it to work in the toughest conditions.**

## INTEGRAL ROTOR

Across the whole range is our 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 reduces crop damage. The INTEGRAL ROTOR units are provided with 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.



**HARDOX®**  
WEAR PLATE

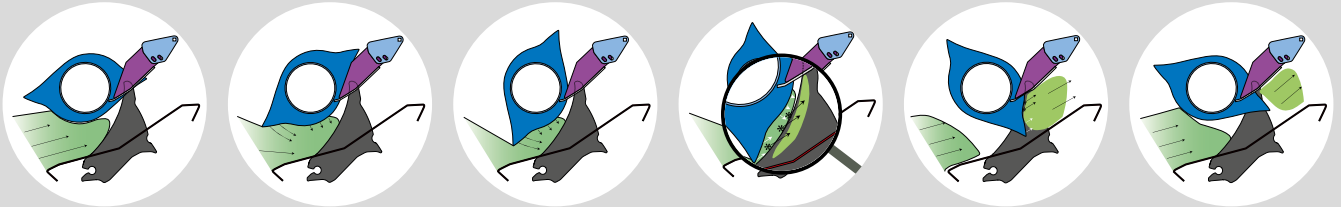
INTEGRAL ROTOR TYPE	i-BIO+	FBP 3135	VBP 3165	VBP 3195
OPTICUT 14 - 70 mm cutting length	• (DROPFLOOR, GROUP SELECTION)	• (DROPFLOOR, GROUP SELECTION)	• (DROPFLOOR, GROUP SELECTION)	• (DROPFLOOR, GROUP SELECTION)
OPTICUT 23 - 45 mm cutting length	• (DROPFLOOR, GROUP SELECTION)	• (DROPFLOOR, GROUP SELECTION)	• (DROPFLOOR, GROUP SELECTION)	• (DROPFLOOR, GROUP SELECTION)



GROUP SELECTION

# INTAKE PERFORMANCE

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-knife OPTICUT cutting system provides 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.



## KNIFE CLEANING

To produce high quality fodder, perfect crop cutting is required. Our machines are standard as equipped with a knife cleaning system. This ensures that in even the most difficult conditions, your machine will process the crop as you expect. The cleaning interval can be conveniently adjusted via the control terminal.

## CROP INTAKE

# 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 work position.

### ROTOR DISENGAGEMENT

In extreme circumstances double security is provided by a standard rotor disengagement clutch. The rotor drive can be disengaged from the bale chamber drive, enabling the binding and discharge of the bale from the chamber.

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. The rotor disengagement is manually operated on the i-BIO+ and VBP, the FBP has standard hydraulically operated rotor disengagement.







### FULLY AUTOMATIC ROTOR DEBLOCK SYSTEM - (STANDARD ON VBP & FBP)

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 is informed about 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 to their position.



**1** When an intake blockage occurs, the operator is informed via an acoustic and visual signal on the control terminal. The intake is protected using the cam clutch protection on the main drive



**2** Once the PTO is disengaged by the operator, the baler automatically starts the deblocking sequence. First the knives are retracted from the inlet channel, followed by the lowering of the dropfloor system



**3** After lowering the knife bank and the dropfloor, the operator can re-engage the PTO drive of the machine. Thanks to the lowered dropfloor system, the aggregated crop can be fed into the machine



**4** During the process, the rotor speed is monitored constantly. The rotor movement indicates when the intake system is cleared again, and triggers the next step in the process



**5** When the correct rotor speed is measured, first the dropfloor system is brought back into position. Thanks to the automatic process, this time is brought back to a minimum



**6** After bringing back the dropfloor into position, also the knife bank is brought back into position. The separate dropfloor-knife action ensures a fast and secure process

# CREATING THE PERFECT BALE

## THE IMPORTANCE OF BALE SHAPE

Consistently shaped bales bring more than just aesthetic appeal. A consistently filled bale represents quality in every form. Perfect firm round bales represent less air in the bale, resulting in high quality feed!

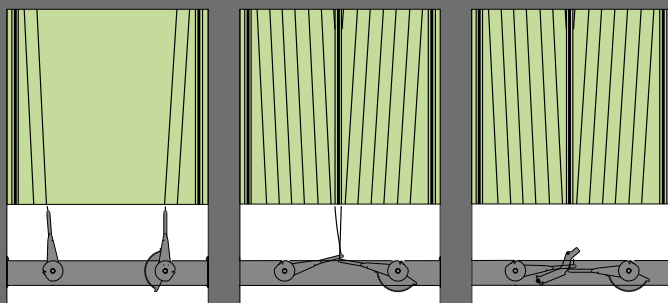


BINDING SYSTEMS	i-BIO+	FBP 3135	VBP 3165	VBP 3195
NET BINDING SYSTEM	•	•	•	•
NET + FILM BINDING SYSTEM	•	•		
NET + TWINE BINDING SYSTEM		•	•	•

## NET BINDING

The net binder with active stretch technology ensures a firm bale shape with constant high net tension throughout the entire binding cycle. The net is fed into the front of the bale chamber to secure an even and direct start. A second net roll storage guarantees sufficient net supply for a long working day. Changing the net roll can easily be done standing safely on the large platform.

KUHN's innovative design allows constant tension to the net during the binding process. The net wrap system runs at 93% of the bale's rotational speed, to be able to stretch the net instead of braking the roll. This provides an exact and consistent net tension in all crop and weather conditions. The net binding system provides excellent net spreading, even beyond the bale shoulders to prevent air pockets and improve the silage quality. The net stretch can simply be adjusted via the variable pulley and the number of net wraps can be adjusted from the terminal.



## 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 VBP and FBP\* can be equipped with a field installed twine binding device.

\* Twine binding is not possible in combination with filmbinding.

Twin tubes feed twine simultaneously

Centre twines overlap

No loose ends at edge of bale

# FILM BINDING

Since the introduction of 2-reel film binding on the i-BIO+ in 2015, farmers all over the world have experienced the advantages of this unique system on their farms. Now, we are proud to introduce this film binding option on the FBP 3135, for film binding without any compromises.

What makes this KUHN solution unique and therefore the right choice for your baling operation? We understand that there is only a short harvest window and little time to make the highest quality silage. This requires a machine which is fast, reliable, versatile and where quality is the first priority.



## MAXIMISE YOUR SILAGE QUALITY

A recent UK study\* showed that there is potential to produce 15 litres of extra milk from a film-only wrapped bale compared to a net and film wrapped bale. The film-only wrapped bales showed increased fermentation and reduced DM losses, resulting in higher quality feed for the livestock.

Key success factor? Circumferential wrapping of the bales, or as we call it: 3D-Wrapping.

\* Film&Film Wrapping: Tested in the field, Dr. Dave Davies, Silage Solutions Limited (2014).



## EASY FILM REMOVAL AND RECYCLING

The film can be removed easily from the bale, as it will not be tangled up in the crop. Especially in sub-zero temperatures this can be a huge time-saver for your daily feed operation.

When it comes to waste management, film-only bales provide additional time savings and costs. Only one type of material is used so there is only need for one recycling process to be put in place just for the film wrap.



## IMPROVED STORAGE CHARACTERISTICS

Not only are bales which are deformed more critical to handle, also the stress on the film could decrease the feed value of the crop.

Film wrapping of bales helps to increase the bale shape and stability during longer storage periods. Thanks to the stretch-type film, force is applied to the cylindrical side of the bale. This ensures that the cylindrical characteristics of the bale are further increased.

## SAVE A MINIMUM OF 30% ON YOUR FILM BINDING COSTS WHEN USING THE KUHN UNIQUE FILM BINDING SYSTEM

The KUHN machines which are equipped with the patented\* film binding use regular 750 mm film rolls. Use of this film type eliminates the need for special wide film, which helps ease your inventory management. It also makes it easier when changing the film rolls as the weight is less (approx. 27 kg).

An important benefit of using regular film is the ability to use a much higher pre-stretch ratio compared to conventional wide film binding systems. This reduces the film costs when using film binding by 30% and reduces the frequency of changing the film rolls by yet another 30%.



\* Patent or patent pending in one or more countries.

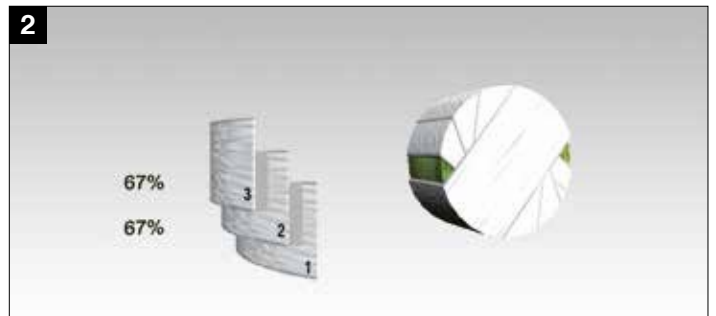
# EXCELLENT WRAPPING



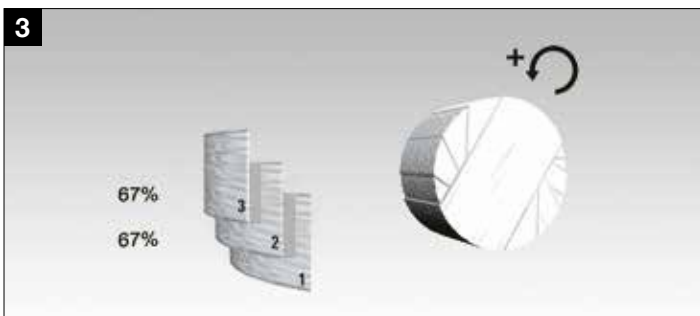
Greater management and control of the wrapping process is achieved by our unique IntelliWrap system. IntelliWrap uses sophisticated electronics and hydraulics to monitor the wrapping process and continuously controls the film overlap, allowing total flexibility. Depending on local circumstances, crop conditions and storage periods the amount of film layers (4, 5, 6, 7, 8, 9...) can simply be adjusted.



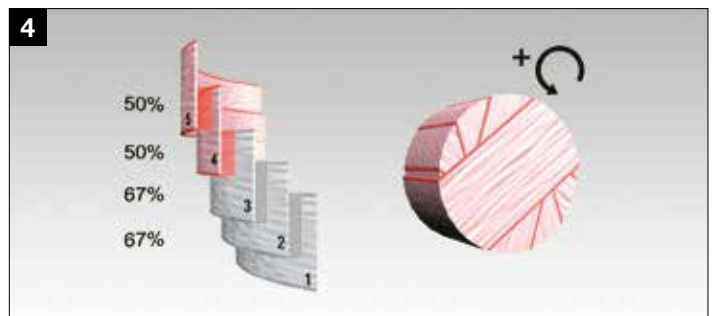
1 Selection of 5 film layers



2 The bale is covered with 3 layers and 67% overlap



3 Increasing of the bale rotation speed



4 Final 2 layers with 50% overlap



Another feature of IntelliWrap is 3D wrapping. 3D wrapping is an intelligent and innovative way of applying stretch film to round bales. Key to the 3D wrapping process is its ability to distribute the total film quantity more uniformly and efficiently across the entire surface of the bale. By wrapping the cylindrical surface of the bale first more air is excluded and the bale shape maintained, even after long storage periods.

The vulnerable bale shoulders are better protected compared to conventional wrapped bales. IntelliWrap provides well-shaped, tightly sealed bales and therefore higher quality silage.



WRAPPING SYSTEMS	i-BIO+	FBP 3135	VBP 3165	VBP 3195
INTELLIWRAP	•	•	•	•
INTELLIWRAP + 3D		•	•	•

**INTELLIWRAP**

# MAXIMISE YOUR OUTPUT

The key in achieving high productivity is to have constant output, where a possible downtime is reduced to the absolute minimum. Our machines and their unique features are designed with this in mind. Especially in the baler-wrapper segment, the time spent on changing film should be as short as possible.



## PRE-STRETCHERS

The standard pre-stretchers hold 750 mm film rolls and are made of aluminum to avoid build-up of tack from the film. The outer ends of the aluminium rollers are cone-shaped, to maintain the optimum width of the film and reduce the risk of film tear. The special ribbed profile of the aluminum rollers keeps air and water away from the film. The standard pre-stretch of 70% is reached by a low-maintenance and low noise gear transmission.

If one of the film rolls is empty or torn the operator can switch to half speed with one push on a button in order to finish the bale with one roll of film. Optionally a film end/ break sensor is available, which warns the operator automatically for an empty film roll or a breakage.





### **FAST FILM CHANGE**

To achieve a fast film change and short downtime, the film containers are strategically placed on the machine. They are placed only a few steps away from the place where you need the film.

The storage and pre-stretchers are placed in such a way that the film can be changed in the most ergonomical way.



# 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.



**CCI 50**

The baler-wrapper combinations are fully ISOBUS compatible. This means the intuitive user interface can be displayed on all VT terminals. The CCI 50 is a fully 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.



**FULL VISIBILITY**

The baler-wrapper 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.



<b>ELECTRONICS</b>			
	<b>i-BIO+</b>	<b>FBP 3135</b>	<b>VBP 3165 - 3195</b>
CCI 50 - ISOBUS COMPATIBLE	•	•	•
CCI 1200 - ISOBUS COMPATIBLE	•	•	•





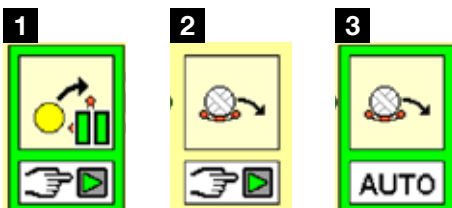
# PROCESS VIEW

Thanks to the **PROCESS VIEW** user interface on the FBP and VBP, you are always informed about the current status of your work processes within the machine. The user interface allows you to choose which process is executed automatically or manually, and all processes can be paused at any time.



## PROCESSES

All processes are displayed on the ISOBUS terminal, as an example, the VBP and FBP show the intake (AUTO DEBLOCK) and the binding as separate processes. When the process is marked green, it is executed. When the process is marked red, an issue occurred and the operator is informed acoustic and visual.



## FULL CONTROL

With just a tap of your finger, you are able to pause a process [1], or choose between manual [2] or automatic [3] operation. This intuitive approach ensures that all operators can work with the machine, and you can benefit from added productivity.





i-BIO+

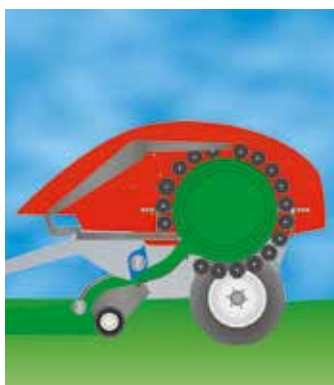
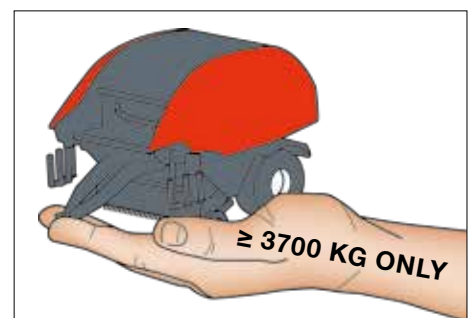
Bale In One

# THE i-BIO+ CONCEPT



## MANOEUVRABILITY

Thanks to the unique design of the i-BIO+, with an integrated wrapper, two operations are combined in one machine. This highly compact and lightweight machine weighs only 3700 kg. With its low weight and excellent manoeuvrability the KUHN i-BIO+ is perfect for hilly conditions and for use in small / wet fields with narrow access gates.





## BALE FORMATION

For compressing the crop into consistent size and dense bales, the baling process has to be as effective as possible, while being gentle on the crop. The bale chamber of the i-BIO+ consists of 18 rollers with a power track profile for reliable bale rotation. 6 rollers in the bottom chamber segment create an ideal wrapping table which is friendly for the film. The integrated stainless steel low friction plates offer a significant reduction of the power requirements.



*Stainless steel low friction plates*

**i-B10+**

**Bale In One**

# WRAPPING AND FILM BINDING



## HIGH SPEED WRAPPING

The bale is ready for immediate wrapping after the upper part of the bale chamber is raised. No bale transfer is needed. The bottom part of the bale chamber is now functioning as a wrapping table. The two integrated pre-stretchers, mounted on a horizontal ring, rotate close around the bale with outstanding speed (up to 50 rpm). It only takes 18 sec to wrap a bale with 6 layers of film.

Proportional valves ensure smooth speeding up and slowing down of the wrapping cycle and so gentle handling of the film. After wrapping, the wrapper ring goes up and the lower part of the bale chamber is lowered allowing the bale to roll gently onto the ground.

## FILM CUTTERS

Two vertical film cutters hydraulically rise from the lower part of the bale chamber to hold and cut the film. Due to its design, the film is caught on its full width. The film is held with a clamp, gathered into a solid string, and then cut before the bale is unloaded. The hydraulic clamp continues to firmly hold the film for the next bale.



# OUR SPECIALIST: THE i-BIO+



**1**  
**5%**  
The film binding cycle starts with the film reels in the upright position. This ensures that the binding material is applied in 2 strands directly and firmly onto the bale surface



**2**  
**10%**  
Once the film is being applied to the bale, the two film reels tilt to a horizontal position. Using of two reels ensures the film is at full width after about half a turn of the bale



**3**  
**55%**  
The number of layers can be conveniently set via the ISOBUS terminal. The high pre-stretch ratio of the film results in 30% film cost savings and even more so during film binding with pre-stretched film



**4**  
**60%**  
After the binding cycles, which can either be performed with net or film, the wrapping cycles can start. Thanks to the unique i-BIO design, there is no need for a bale transfer which can help you to save wrapping costs



**5**  
**80%**  
Unique to the i-BIO is the wrapping ring, with two pre-stretchers. At high speed, the complete bale is wrapped with stretch film, creating a perfect, airtight, seal



**6**  
**100% PROTECTED**  
Once the bale is completely protected, it is gently unloaded by the machine. Thanks to the design of the bale chamber, the drop height is kept as low as possible. Optionally, the machine can be equipped with a bale turner, to turn the bale onto its flat end

## EASY EXCHANGE OF FILM ROLLS

1. Release lever and push handle to hydraulically lower the film rolls to arm level
2. Fold out the film roll
3. Slide off the empty film roll and replace it with a new one
4. Repeat the proceedings in reverse order

Due to this unique 2 reel system, there is no need to lift and install heavy wide film rolls at the top of the machine.

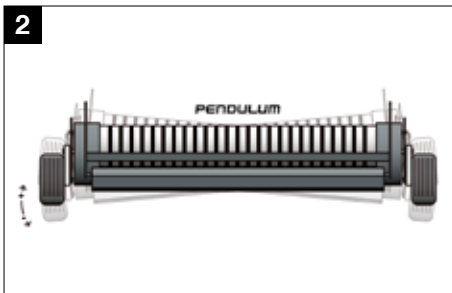


# OVERVIEW i-BIO+

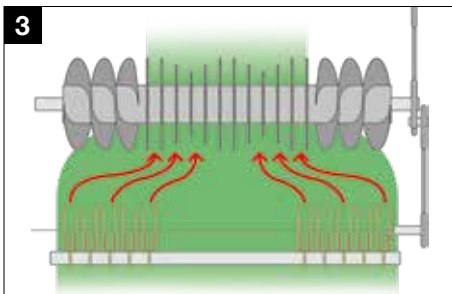
## MACHINE HIGHLIGHTS



Robust driveline with high quality IWIS chains



Pendulum pick-up



INTEGRAL ROTOR Technology



Mechanical rotor disengagement





# OPTIONS



*Beka Max automatic bearing greasing system*



*Optional film binding*



*Bale turner, unloading the bale on its flat end*



*Several hitch options including a ball-hitch coupling*



*CCI 50 and CCI 1200 Control box*

# FAST AND RELIABLE BALE TRANSFER



To minimize idle time and maximize output, a rapid bale transfer is required. The side guide protection plates on the FBP 3135 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, even bale rotation and proper film overlap, regardless of the bale shape. The improved “twin loading fork” system offers faster bale transfer of by up to 30%.

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 its raised position.

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

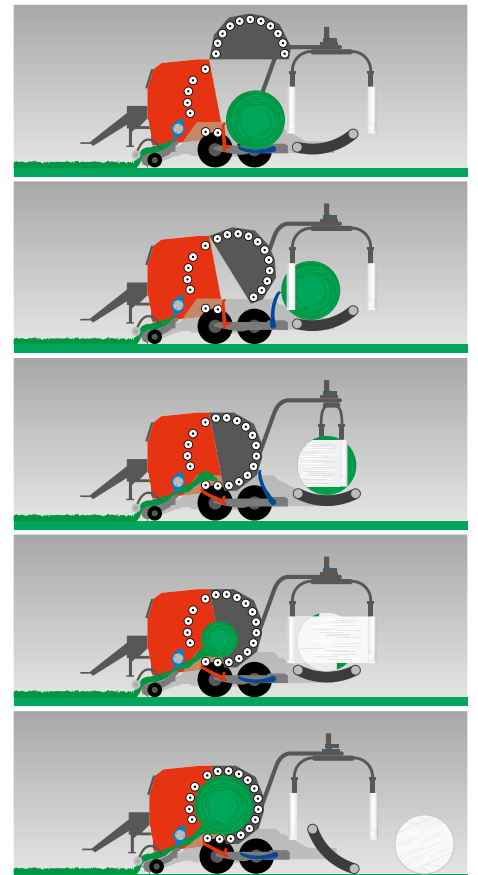
The wrapping table returns to its horizontal position and the second loading fork is lowered. The bale lies on the wrapping table supported by four wide belts and four lateral guide rollers.

**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 is sprinkled between the layers of film during the wrapping process. This results in effective sealing between film layers and the highest possible silage quality.

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





### SCISSOR TYPE FILM CUTTERS

A clean cut and secure hold of the stretch film is achieved by the scissor type film cutters. Thanks to their unique design, the film is compacted before its cut, ensuring that the chance of film rupture is reduced to a minimum. This results again in high productivity throughout the day.



# MAXIMIZE YOUR BALE CONSERVATION QUALITY



## BALE CHAMBER

The redesigned heart of the balers consists of 18 Power Track rollers. The 18 renewed power track rollers have symmetrical profiles which generate exceptionally high density and reliable bale rotation in all crop conditions. All rollers are made of 3,2 mm thick high-strength steel which are roll-formed and laser-welded on only one side for optimal durability. In addition, a minimum of space between the rollers reduces crop loss.

In addition to the 50 mm double raced bearings on the drive side main load points, trouble free baling in heavy conditions is guaranteed. All bearings have central greasing, a Beka Max automatic bearing greasing system is standard.

The rollers have built in scrapers to push the material out and away from the bearings.



*Built in scrapers*



### **FAST TAILGATE DETECTION**

The tailgate opens and closes in  $\geq 4,5$  seconds (60 l/min oil flow) thanks to its stable design with torsion pipes. Strong hydraulic tailgate cylinders keep the tailgate closed and ensure a consistent bale size with maximum bale density. These cylinders act as a hydraulic lock and prevent the baler from overloading (POWER LOCK). Highly accurate tailgate sensors monitor the bale growth as from 80%. You are notified about the baling process through the bale growth indicator. In addition, the FBP 3135 allows you to guide the baler according to the left-right bale chamber filling indication displayed on the terminal for extra driver comfort. This results in optimum bale shape and density.



# WRAPPING AND FILM BINDING

## GUARANTEED BINDING START

The two reels guarantee a secure binding start in all circumstances. Regardless of rain or hilly terrain, the binding will start. The two strands of film ensure the binding material is applied on top of the bale. It is not necessary to feed some extra material in the chamber at this point.

Another film saving comes from the fact that the two film strands are much faster at full width compared to a conventional wide mantle film system.

## ADAPTED FOR FILM BINDING

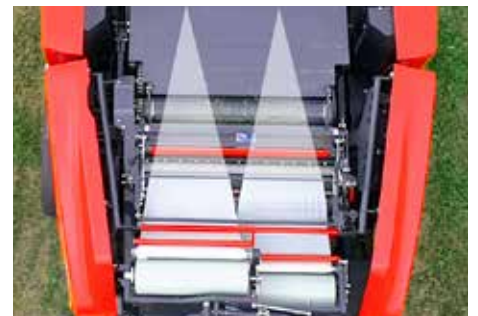
The KUHN FBP 3135 has a specially adapted bale chamber to prevent film damage and to guarantee film binding without any compromises. The loading arms are equipped with special smooth rollers to prevent damage to the film during the bale transfer.

During bale ejection, the last roller on the tailgate is automatically disengaged to prevent film damage. This fully automatic switch off is completely mechanical.

## HIGH MACHINE OUTPUT

Versatility and maximum output in a short harvest window is what a machine in this range needs. Our INTEGRAL ROTOR system and automatic rotor DEBLOCK system provide you with a top of the range intake capacity to meet these requirements.

But again, it is all in the details; changing from net to film binding can be done without changing the film and net rolls on the machine. This avoids wasting any time, offers greater flexibility when working across several fields and different customer requirements.



# OUR RECOMMENDATION: FILM BINDING AND 3D WRAPPING COMBINED



The film binding cycle starts with the film reels in the upright position. This ensures that the binding material is applied in 2 strands directly and firmly onto the bale surface



Once the film is being applied to the bale, the two film reels tilt to a horizontal position. Using two reels ensures the film is at full width after about half a turn of the bale



The number of layers can be conveniently set via the ISOBUS terminal. The high pre-stretch ratio of the film results in 30% film cost savings and even more so during film binding with pre-stretched film



When the bale is ejected from the chamber, already 60% of the bale is covered with stretch film. Use of regular film with tack is the first step in a perfect oxygen barrier. The cylindrically applied stretch film compresses the bale and provides a solid base for excellent storage



The well-known 3D wrapping uses the same film material for wrapping the bale. 3D wrap can therefore use the tack of the film to create a seamless fit with the other film generated from the film binding. This prevents air pockets and provides more cylindrical layers around the bale. 3D applies the film where it is most needed by protecting the corners of the bale first. This increases the form stability compared to a conventional (2D) system. After completing the 3D wrapping cycle, 80% of the bale is covered in film



Conventional wrapping ensures 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 for the highest silage quality preservation possible. The cylindrical wrap ensures that a KUHN FBP bale retains its shape, even after long storage periods

## EASY EXCHANGE OF FILM ROLLS

1. Release lever and push handle to hydraulically lower the film rolls to eye level
2. Fold out the film roll
3. Slide off the empty film roll and replace it with a new one
4. Repeat the proceedings in reverse order

Due to this unique 2 reel system, there is no need to lift and install heavy wide film rolls at the top of the machine.

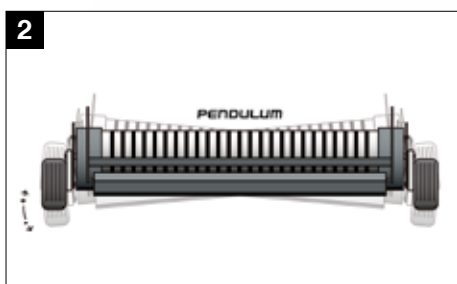


# OVERVIEW FBP 3135

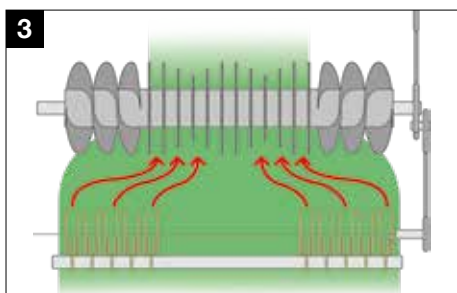
## MACHINE HIGHLIGHTS



Robust driveline with high quality IWIS chains



Pendulum pick-up



32 INTEGRAL ROTOR Technology



Standard separate knife / DROPFLOOR controlled from the terminal



Sturdy and wide oil brushes on the chains ensure perfect lubrication



# OPTIONS



9  
*Beka Max continuous chain oiling system*



8  
*Standard automatic greasing system for roller bearings*



6  
*Standard hydraulic rotor disengagement*



7  
*Proportional valve for in-cab density control as standard*



500/45-22.5



500/45-22.5



*3D wrapping*



*Film binding*



*Pivoting pick up wheels*



*LED work lights*



*4 KG grease pot*



*CCI 50 and CCI 1200 Control box*

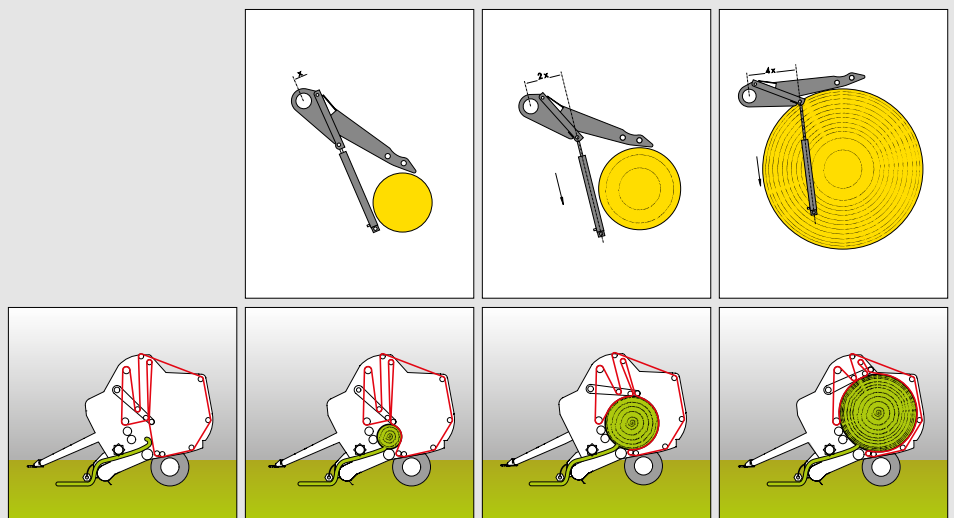
# PROGRESSIVE DENSITY - THE KUHN SOLUTION



The PROGRESSIVE DENSITY system has proven its value on all KUHN VB(P) 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(P) 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(P) 3100 bale chamber



### **EXTREME VERSATILITY**

The KUHN VBP series is known for its multi-crop abilities. This means that not only the bale size is variable, also the machine usage is variable. Imagine the possibilities of such a machine within your company:

- Producing small diameter hay bales for easy handling in horse stables, versus large diameter silage bales to use the crop packaging material as efficiently as possible.
- Bale silage in the morning, switch to straw in the afternoon, and finish with silage again. Your machine will generate turnover all day long.
- The investment in a multidisciplinary machine on your farm eliminates the need for separate machines for the straw, hay and silage harvest. One machine will do the job.

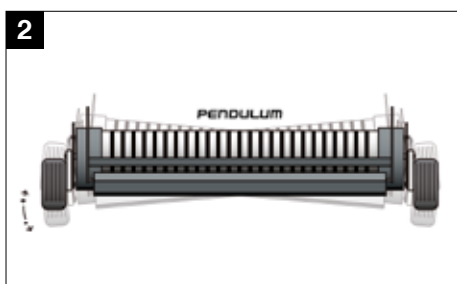


# OVERVIEW VBP 3165-95

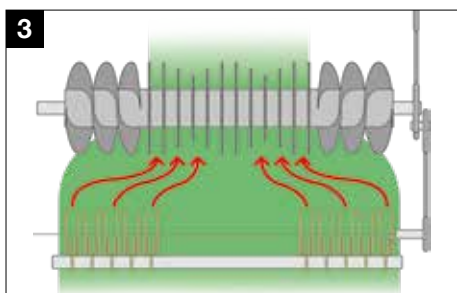
## MACHINE HIGHLIGHTS



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



Pendulum pick-up



36 INTEGRAL ROTOR Technology



Separate knife / DROPFLOOR controlled from the tractor cab



Sturdy and wide oil brushes on the chains ensure perfect lubrication

# OPTIONS



10  
*Large crop roller (Ø 217 mm)*



9  
*Beka Max continuous chain oiling system*



8  
*Robust driveline with high quality IWIS chains +  
1 1/4" 20BH primary driveline with chrome hardened pins*



6  
*Heavy duty cross joints in the drive axles*



7  
*Proportional valve for in-cab density control*



500/45-22.5



500/45-22.5



*3D wrapping (VBP 3165 & 3195)*



*Pivoting pick up wheels*



*CCI 50 Control box*



*CCI 1200 Control box*

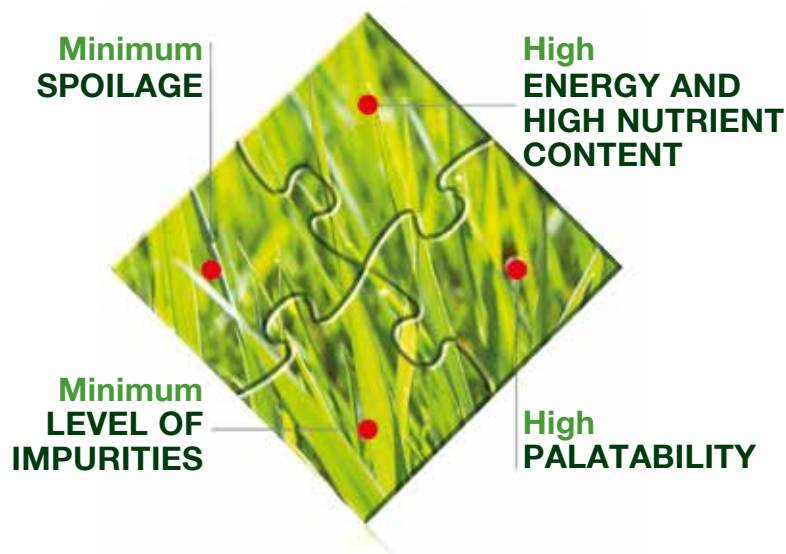
# SIMPLY GREAT FORAGE!



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.

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\*Source: Agricultural chamber Weser-Ems, Germany.

Find all our expertise on forage. [KUHN.com](http://KUHN.com)



be strong, be **KUHN**

## 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.



SPECIFICATIONS								
	i-BIO+		FBP 3135		VBP 3165		VBP 3195	
	OPTICUT 14	OPTICUT 23	OPTICUT 14	OPTICUT 23	OPTICUT 14	OPTICUT 23	OPTICUT 14	OPTICUT 23
<b>Machine dimensions</b>								
Length	4.50 m		6.46 m		6.60 m		6.60 m	
Height	≥ 2.25 m		2.73 m		2.92 m		2.92 m	
Width	≥ 2.75 m		≥ 2.97 m		≥ 2.97 m		≥ 2.97 m	
Weight	≥ 3700 kg		≥ 5600 kg		≥ 5710 kg		≥ 5755 kg	
<b>Pick-Up</b>								
Pick-up width	2.30 m		2.30 m		2.30 m		2.30 m	
Number of tine rows	5		5		5		5	
Tine spacing	61 mm		61 mm		61 mm		61 mm	
Pick-up wind guard	Standard roller type		Standard roller type		Standard roller type (Ø 217 mm)		Standard roller type (Ø 217 mm)	
Pneumatic gauge wheels	◆		◆		◆		◆	
Pivoting guide wheels	◇		◇		◇		◇	
<b>Intake</b>								
Bale formation	Cutting Rotor with double tines		Cutting Rotor with double tines		Cutting Rotor with double tines		Cutting Rotor with double tines	
Theoretical cutting length	≥70 mm	≥45 mm	≥70 mm	≥45 mm	≥70 mm	≥45 mm	≥70 mm	≥45 mm
Knife protection	Individual spring		Individual spring		Individual spring		Individual spring	
GROUP SELECTION knives	0-4-7-7-14	0-7-11-12-23	0-4-7-7-14	0-7-11-12-23	0-4-7-7-14	0-7-11-12-23	0-4-7-7-14	0-7-11-12-23
Hydraulic rotor disengagement	◇		◆		-		-	
DROPFLOOR	◆		◆		◆		◆	
Automatic rotor DEBLOCK system	-		◆		◆		◆	
Automatic knife cleaning	◆		◆		◆		◆	
<b>Bale chamber</b>								
Bale chamber type	18 POWER TRACK rollers		18 POWER TRACK rollers		PROGRESSIVE DENSITY		PROGRESSIVE DENSITY	
Diameter	1.25 m		1.25 m		0.80 - 1.60 m		0.80 - 1.85 m	
Width	1.22 m		1.22 m		1.20 m		1.20 m	
Belt width	-		-		215 mm		215 mm	
<b>Operation</b>								
Control system	ISOBUS		ISOBUS		ISOBUS		ISOBUS	
Bale pressure setting	Terminal		Terminal		Terminal		Terminal	
Independent knife/DROPFLOOR selection	Terminal		Terminal		Terminal		Terminal	
<b>Hydraulics</b>								
Load Sensing	◆		◆		◆		◆	
<b>Binding</b>								
Net binding	◆		◆		◆		◆	
Net + twine binding	-		-		◇		◇	
Net + film binding	◇		◇		-		-	
<b>Tyres</b>								
2 x 500/45-22.5	◆		-		-		-	
2 x 560/45-22.5	◇		-		-		-	
2 x 650/40-22.5	◇		-		-		-	
4 x 500/45-22.5	-		◆		◆		◆	
4 x 500/45-22.5 RIDEMAX	-		◇		◇		◇	

◆ standard ◇ option - = not available

i-BIO+, FBP, VBP

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