

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

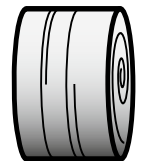
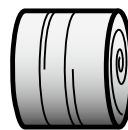
Our goal is to develop machines that boost the profitability of your company. High output is a key success factor for every baler. KUHN baler-wrapper combinations feature several unique points that deliver this capacity to your company.

### ROUND BALES

Perfectly shaped, consistent round bales are the end-result what every customer is looking for. With over 35 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 downtime 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 are 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 or wet fields with narrow access gates.

The FBP 3135 fixed chamber baler-wrapper combination is designed to endure the heaviest crop conditions across the world. Thanks to its proven design and unique options, this machine will boost your business' profitability.

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



**i-BIO+**



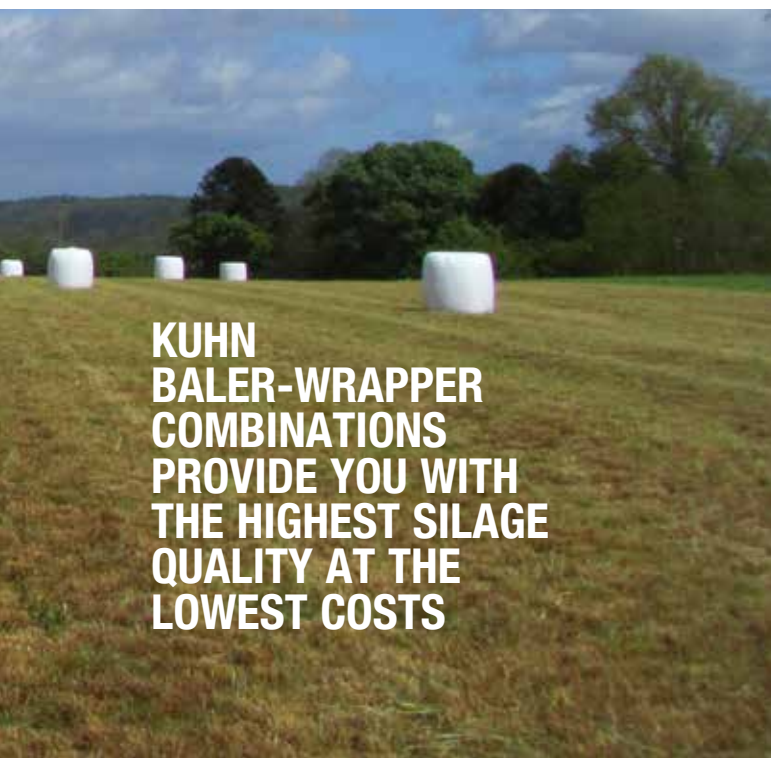
**FBP 3135**



**VBP 3165**



**VBP 3195**



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



**CROP INTAKE**

# CROP FLOW CONTROL

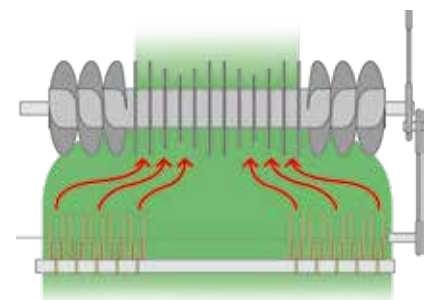


**KUHN balers guarantee optimal crop intake. The wide cam-track pick-up unit on models with rotor intake provides maximum ground adaption when combined with its pendulum capabilities enabling it to work in the toughest conditions.**

## INTEGRAL ROTOR

Available across the entire range, our INTEGRAL ROTOR technology can be found on OPTIFEED and OPTICUT models. This simple, maintenance-free intake system guarantees 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.



**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)

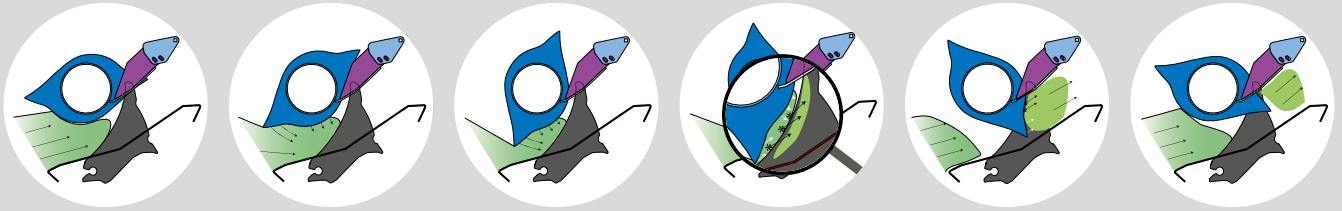


GROUP SELECTION



# INTAKE PERFORMANCE

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.



**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. This will enable the operator to bind and eject the bale from the chamber before continuing.

Both the rotor disengagement and DROPFLOOR technology ensure 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, at the FBP a hydraulically operated rotor disengagement comes as standard.







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

The baler's overload protection clutch activates whenever the baler's 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

Consistently shaped bales offer 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 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 ensure it is taken by the bale immediately.

KUHN's innovative design maintains constant net tension during the binding process. The net wrap system runs at a lower speed than the bale's rotational speed to be able to consistently stretch the net up to 10% without breaking it. The pre-stretched net results in a bale that 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.





# FILM BINDING

Since the introduction of KUHN TWIN-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 also offer the film binding option on all FBP and VBP models.

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.



Watch the video



## MAXIMISE YOUR SILAGE QUALITY

A leading 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.

\* 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 37% ON YOUR FILM BINDING COSTS WHEN USING THE KUHN UNIQUE FILM BINDING SYSTEM

The KUHN patented film binding system uses two regular 750 mm stretch-film rolls. This eliminates the need for special wide film, which simplifies your inventory management. Film binding improves the silage quality, bale shape, stability and opening of the bale.

Using regular wrapping film enables you to use a much higher pre-stretch ratio compared to conventional wide film binding systems. This reduces your film binding costs by 37%. The stretched film, with tack between the layers, can withstand damages without the risk of bursting bales or sliding of the film during baler-to-wrapper transfer.

KUHN TWIN-reel film binding extends the film change intervals by another 30%. Changing the roll can be done without lifting and installing heavy, wide film rolls at the top of the machine. You can easily switch between film and net and vice versa without taking the net and film rollers out of the machine.





# EXCELLENT WRAPPING



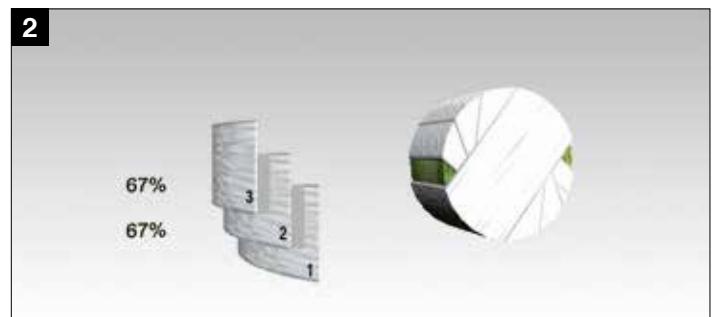
**KUHN has been a pioneer in wrapping and baling technology. This results in a broad offer of revolutionary and unique systems: INTELLIWRAP, 3D wrapping and film binding. The combination of these three technologies offers you the best possible solution.**

## INTELLIWRAP

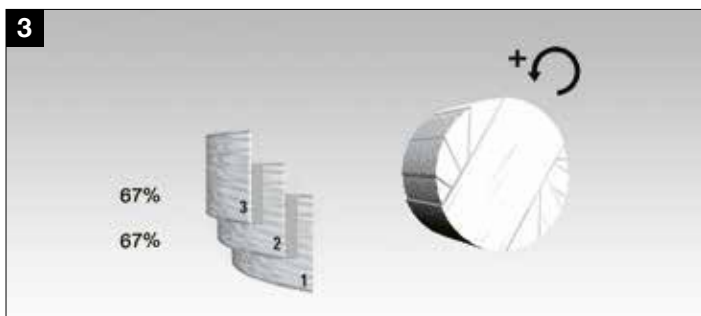
The INTELLIWRAP technology uses sophisticated electronics and hydraulics to monitor the wrapping process and continuously control the film overlap, allowing complete flexibility. For the best conservation and fermentation of your valuable crop, wrapping the bale is crucial in this process. Depending on personal preferences, crop conditions and the storage periods, the amount of film layers (4, 5, 6, 7, 8, 9...) can easily be applied.



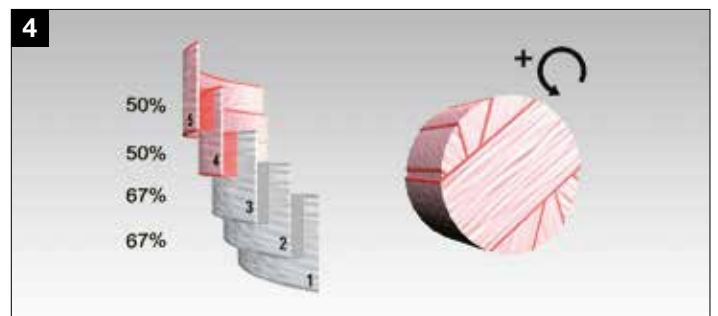
1 Selection of 5 film layers



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





KUHN's 3D wrapping is an intelligent and innovative way of applying stretch film to round bales. It distributes the total film quantity more uniformly and efficiently across the entire surface of the bale. 3D wrapping will first apply the film where it is most needed: the vulnerable bale shoulders. The cylindrical wrap ensures that more air is excluded and that the bale retains its shape, even after long storage periods.

Use of INTELLIWRAP, 3D wrapping and film binding provides well-shaped, tightly sealed bales that will maintain silage quality over long storage periods.



**60% of bale covered**



**75% of bale covered**



**100% of bale covered**

WRAPPING SYSTEMS	i-BIO+	FBP 3135	VBP 3165	VBP 3195
INTELLIWRAP	◆	◆	◆	◆
INTELLIWRAP + 3D	-	◇	◇	◇
FILM BINDING	◇	◇	◇	◇



# 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 or 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.

### **VISION PACK**

Work day and night thanks to the optional Vision Pack for FBP and VBP, consisting of 7 LED work lights.





# 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 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 so you can stow it 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. The kit consists of a separate monitor and a camera or a camera which can be connected to the CCI 1200 terminal.



ELECTRONICS	i-BIO+	FBP 3135	VBP 3165 - 3195
ISOBUS - direct on tractor	◆	◆	◆
CCI 800 - ISOBUS COMPATIBLE	◇	◇	◇
CCI 1200 - ISOBUS COMPATIBLE	◇	◇	◇





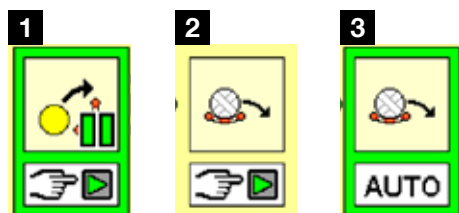
# PROCESS VIEW

Thanks to the **PROCESS VIEW** user interface on the FBP and VBP, you are always informed about the current status of your work processes. The user interface displayed on the ISOBUS terminals 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 acoustically and visually.



## 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+

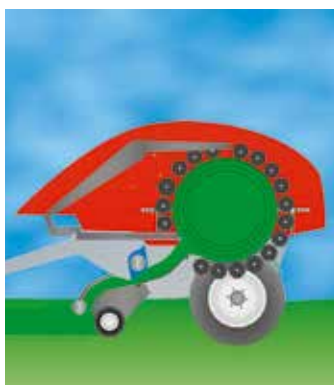
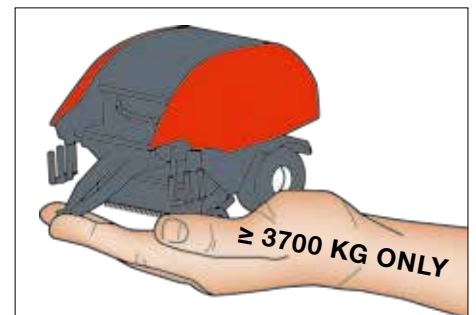
Bale In One

# 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+ offers you outstanding performances in hilly conditions and in small or 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 POWERTRACK profile for reliable bale rotation. 6 rollers in the bottom chamber segment create an ideal wrapping table which is film-friendly. The integrated stainless steel low friction plates offer a significant reduction of the power requirements.



*Stainless steel low friction plates*



**i-BIO+**

**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 the wrapping table. The wrapping ring is unique to the i-BIO+, with two integrated pre-stretchers. They rotate close around the bale with outstanding speeds (of up to 50 rpm). It only takes 18 seconds to wrap a bale with 6 layers of film.

Proportional valves ensure smooth speeding up and slowing down of the wrapping cycle and thus gentle handling of the film. Once the bale is completely protected, it is gently unloaded by the machine.

## 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+



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 of 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



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



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



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 the lever and push the 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 TWIN-reel system, there is no need to lift and install heavy wide film rolls at the top of the machine.



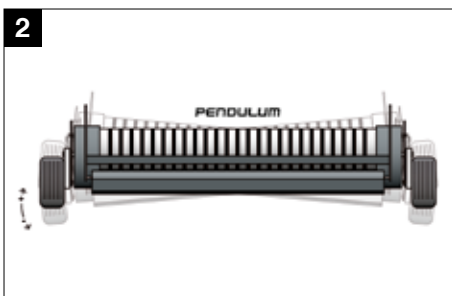


# OVERVIEW i-BIO+

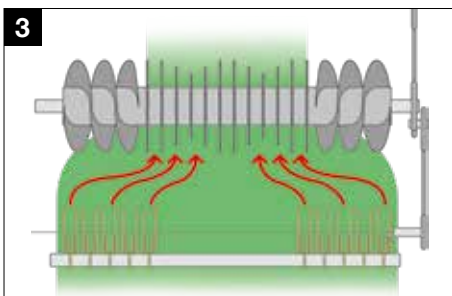
## MACHINE HIGHLIGHTS



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*



*Bale stopper*



*CCI 800 and CCI 1200 Control box*



# FAST AND RELIABLE BALE TRANSFER



To minimise idle time and maximise output, a rapid bale transfer is required. The side guide protection plates on the FBP and VBP BalePacks 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 arm' system offers a faster bale transfer of 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.

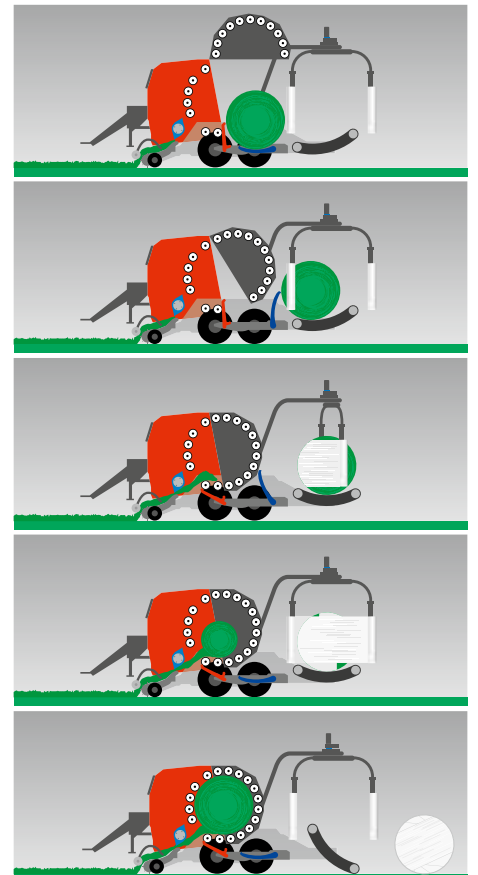
The wrapping table returns to its horizontal position and the second loading fork is lowered. The bale lies on the wrapping table supported by four wide belts and four lateral guide rollers.

**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 it is cut, ensuring that the chance of film rupture is reduced to a minimum. This results again in high productivity throughout the day.





# WRAPPING AND FILM BINDING

The VBP and FBP BalePacks offer you high versatility all year round. They can be equipped with the patented\* KUHN TWIN-reel film binding system, which makes the machine even more versatile in silage conditions. The TWIN-reel film binding system ensures the highest silage quality at the lowest costs.

## GUARANTEED BINDING START

The starting string of the film ensures secure binding and a reliable start-up in all circumstances, resulting in minimum downtime. Regardless of rain or hilly terrain, the binding will start. The two strings 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.

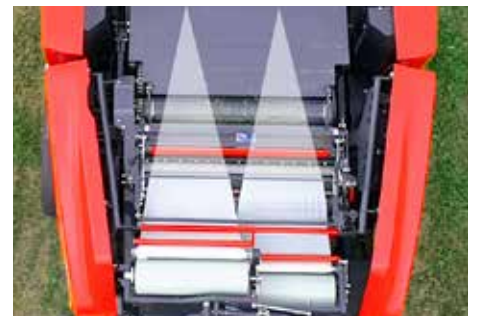
From being pulled in as a string, the film quickly reaches the full width of the bale. Another film saving compared to a conventional wide mantle film system!

## ADAPTED BALE CHAMBER

The KUHN VBP and FBP feature 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.

## SWITCH QUICKLY BETWEEN BINDING

The film and net binding systems are two separate systems, which enable the operator to carry both film and net at the same time. Switching between the two is quick and easy – you don't have to change rolls and there are no tools needed.





# 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. Fold out the film roll
2. Slide off the empty film roll and replace it with a new one
3. Repeat steps 1 and 2 in reverse order
4. Fold in and insert film in binding system

Thanks to the limited weight per roll (not more than 27 kg), the rolls are easy to handle. This, combined with the low lifting height and the user-friendly film roll system, makes the exchange of film rolls an easy job.





# MAXIMIZE YOUR BALE CONSERVATION QUALITY



## BALE CHAMBER

The redesigned heart of the balers consists of 18 POWERTRACK rollers. The 18 renewed rollers have symmetrical profiles which generate exceptionally high densities 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.

Thanks 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**

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 via 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 operator comfort. This results in optimum bale shape and density. The tailgate opens and closes in  $\geq 4,5$  seconds (60 l/min oil flow) thanks to its stable design with torsion pipes.



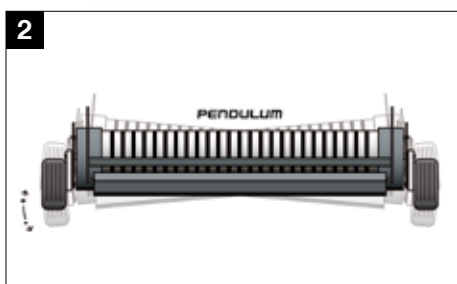
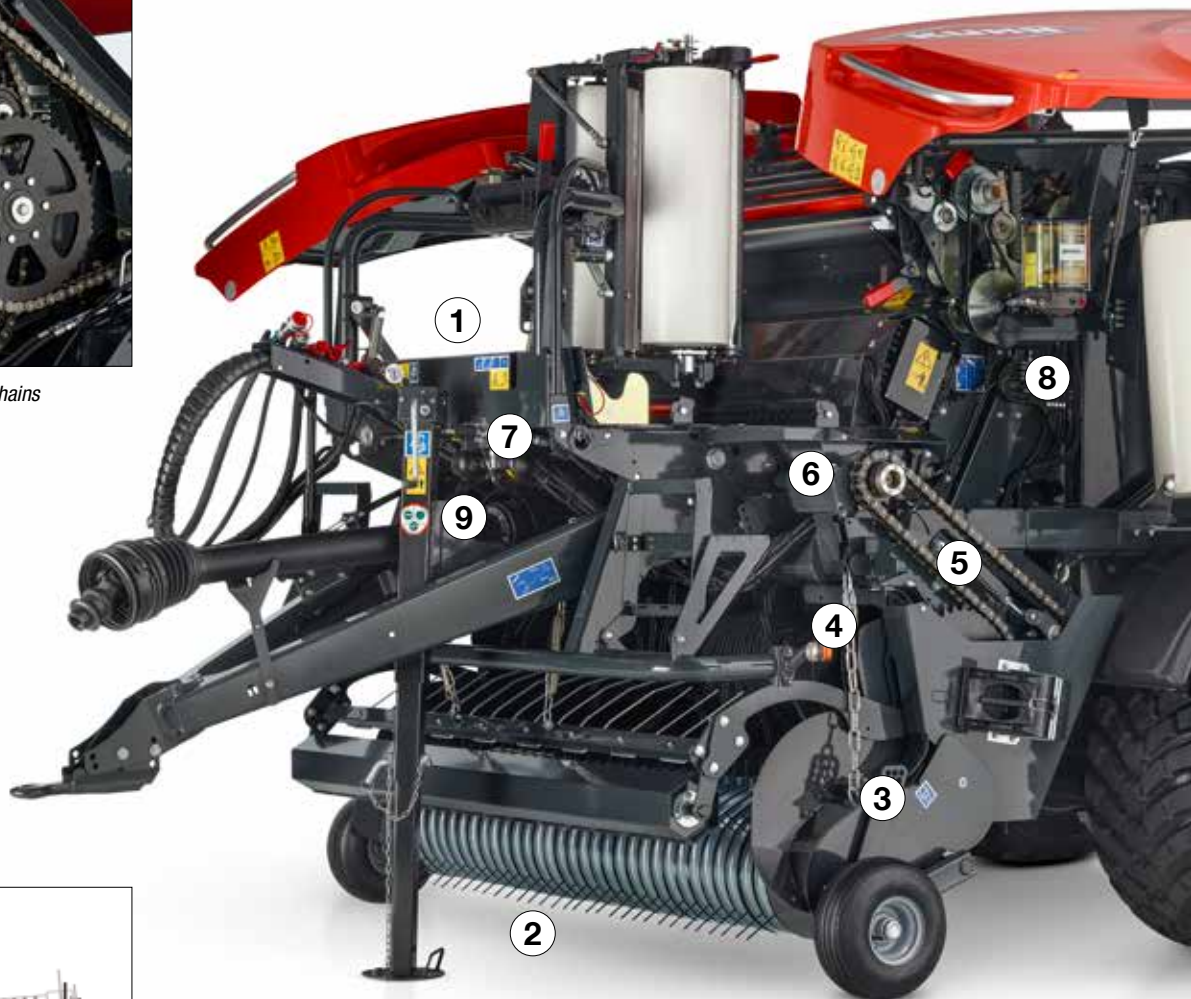


# OVERVIEW FBP 3135

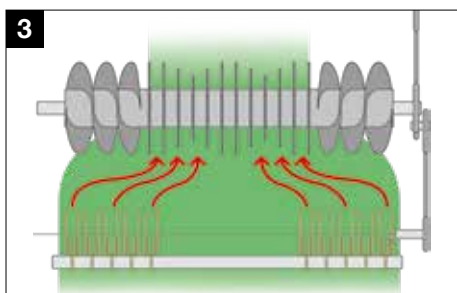
## MACHINE HIGHLIGHTS



Robust driveline with high quality IWIS chains



Pendulum pick-up



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*

*500/45R22.5*



*Weighing system*



*3D wrapping*



*Film binding*



*Pivoting semi-pneumatic pick-up guide wheels*



*4 kg grease pot*



*CCI 800 and CCI 1200 Control box*



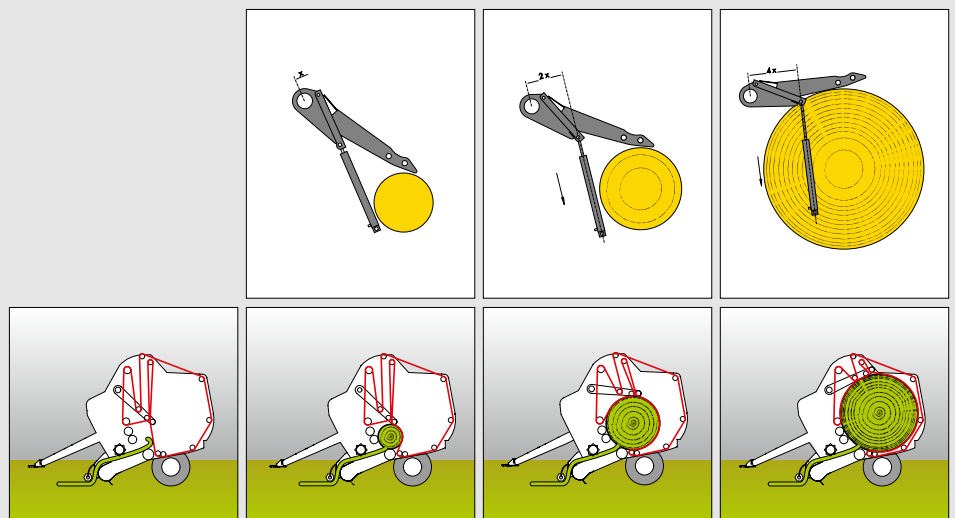
# PROGRESSIVE DENSITY - THE KUHN SOLUTION



The PROGRESSIVE DENSITY system has proven its value on all KUHN VBP 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 VBP 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.



VBP 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.
- Now this BalePack can be equipped with the KUHN TWIN-reel film binding system, which makes the machine even more versatile in silage conditions. "



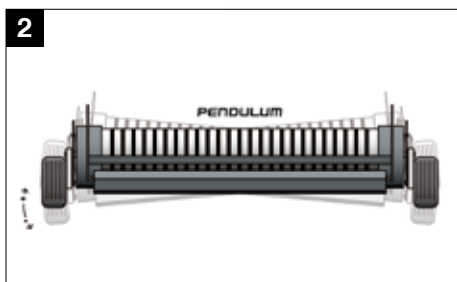


# OVERVIEW VBP 3165-95

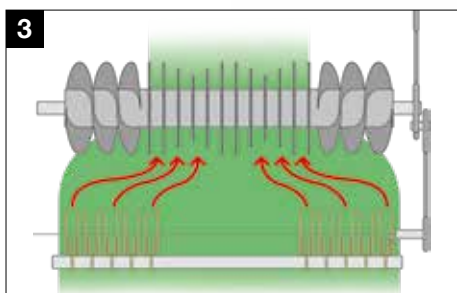
## MACHINE HIGHLIGHTS



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



Heavy duty cross joints in the drive axles



Heavy crop roller with a windguard (Ø 217 mm)



BEKA-MAX continuous chain oiling system



Robust driveline with high quality IWIS chains + 1¼" 20BH primary driveline with chrome hardened pins



Proportional valve for in-cab density control



3D-Wrapping



Pivoting semi-pneumatic pick-up guide wheels



CCI 800 and CCI 1200 Control box



Moisture system



Weighing system



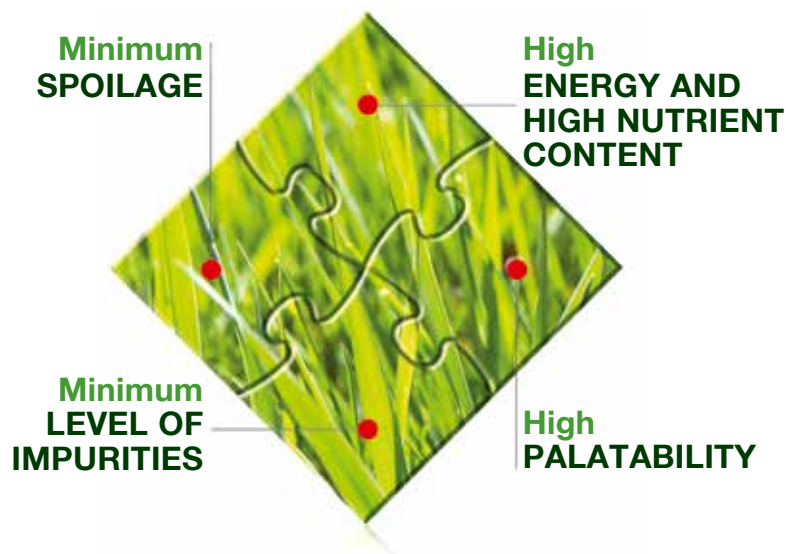
# SIMPLY GREAT FORAGE!



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.

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be strong, be **KUH N**

## KUH N PARTS

DESIGNED AND MANUFACTURED TO TIME



KUH N 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 KUH N PARTS warehouse, which provide quick and reliable repair solutions in cooperation with your nearest authorized KUH N 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>Bale dimensions</b>								
Diameter (m)	1.25		1.25		0.80 - 1.60		0.80 - 1.85	
Width (m)	1.22		1.22		1.20		1.20	
<b>Pick-Up</b>								
Pick-up width (m)	2.30		2.30		2.30		2.30	
Number of tine rows	5		5		5		5	
Tine spacing (mm)	61		61		61		61	
Crop roller with wind guard	Standard		Standard		Heavy (Ø 217 mm)		Heavy (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 (mm)	≥70	≥45	≥70	≥45	≥70	≥45	≥70	≥45
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>Binding system</b>								
Net binding	◆		◆		◆		◆	
Net + film binding	◇		◇		◇		◇	
<b>Bale chamber</b>								
Bale chamber type	18 POWERTRACK rollers		18 POWERTRACK rollers		PROGRESSIVE DENSITY		PROGRESSIVE DENSITY	
<b>Operation</b>								
Control system	ISOBUS (CCI 800 / CCI 1200)		ISOBUS (CCI 800 / CCI 1200)		ISOBUS (CCI 800 / CCI 1200)		ISOBUS (CCI 800 / CCI 1200)	
Bale pressure setting	Terminal		Terminal		Terminal		Terminal	
Independent knife/ DROPFLOOR selection	Terminal		Terminal		Terminal		Terminal	
<b>Hydraulics</b>								
Load Sensing	◆		◆		◆		◆	
<b>Tyres</b>								
2 x 500/45-22.5	◆		-		-		-	
2 x 560/45R22.5	◇		-		-		-	
2 x 650/40R22.5	◇		-		-		-	
4 x 500/45-22.5	-		◆		◆		◆	
4 x 500/45R22.5 RIDEMAX	-		◇		◇		◇	
<b>Machine dimensions and weights</b>								
Length (m)	4.50		6.46		6.60		6.60	
Height (m)	2.25		2.73		2.92		2.92	
Width (m)	2.75		2.99		2.99		2.99	
Weight min - max (kg)	3700 - 4500		5600 - 6300		5400 - 6300		5400 - 6300	
<b>Power requirements</b>								
Minimum PTO power requirement (kW / hp)	80 / 109		80 / 109		80 / 109		80 / 109	

◆ standard ◇ option - = not available



i-BIO+, FBP, VBP

# DESIGNED BY KUHN, MADE BY KUHN

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



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