

Round Balers



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

# i-BIO+

## Bale and Wrap in one go



be strong, be **KUHN**



# KUHN i-BIO+

## INTELLIGENT BALING AND WRAPPING IN ONE GO



### 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 round balers 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, our machines can produce high bale densities even in the most demanding conditions.

#### RELIABILITY

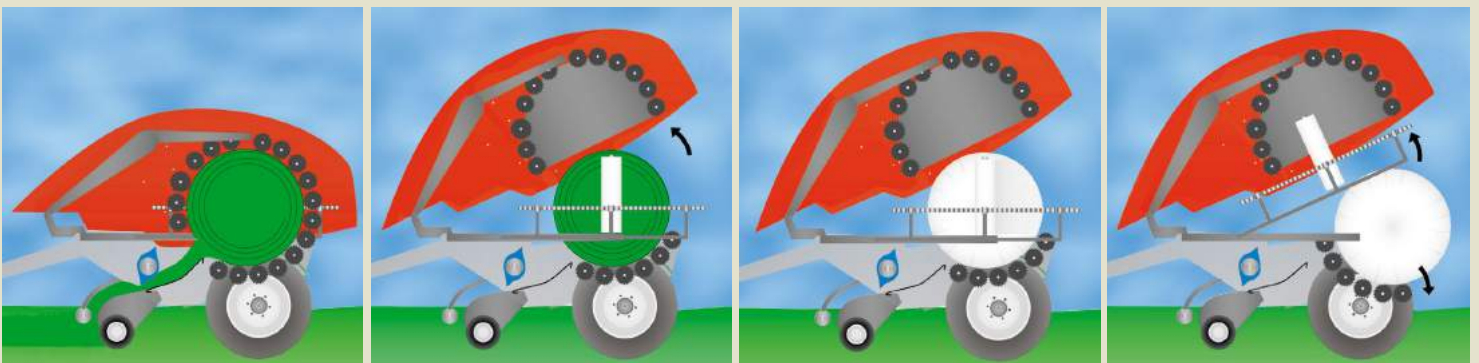
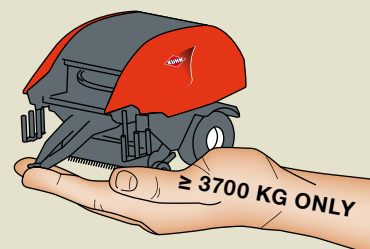
To achieve a maximum efficiency of your machine, an unmatched reliability is a must. KUHN offers the most efficient and versatile range of balers available on the market designed with simple, but efficient techniques. This results in a minimum in down time and a machine that you can trust.



# BALE AND WRAP IN ONE GO

## MANOEUVRABILITY

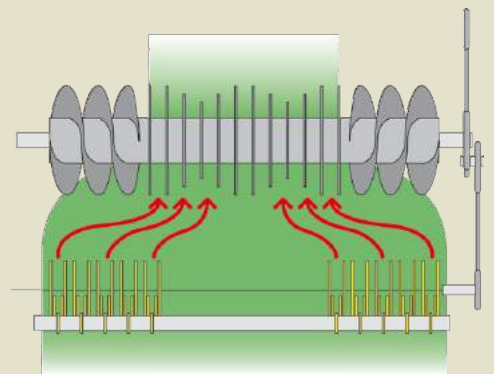
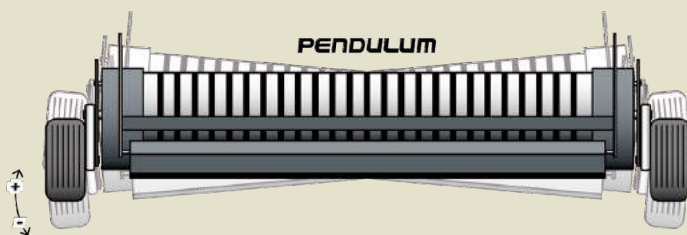
Thanks to the unique design of the i-BIO+, with integrated wrapper, two operations are combined in one machine. This highly compact and lightweight machine weighs only 3700 kg. With its low weight and excellent manoeuvrability the KUHN i-BIO+ is perfect for hilly conditions and for use in small / wet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



# CROP INTAKE

## OPTIMAL INTAKE PERFORMANCE

The i-BIO+ features a 230 cm wide pick-up unit with cam-track for optimal crop intake. The wide intake unit is designed to match the full capacity of the machine. The machine is capable of working in all swaths and will not let you down, even in the harshest conditions. The 5 tine rows and short crop roller ensure a fluent and clean raking job, even at high forward speeds. To adapt the machine to your purposes, you have the choice between fixed and pivoting pick-up wheels.



**HARDOX®**  
WEAR PLATE

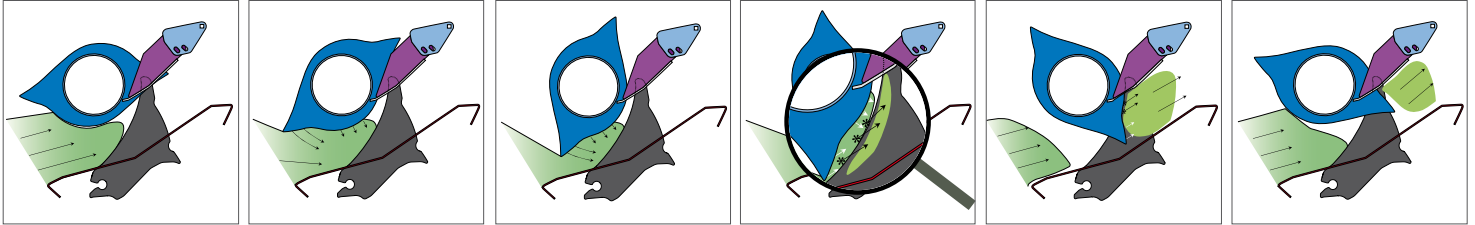
## INTEGRAL ROTOR - CROP CUTTING QUALITY

The i-BIO+ is equipped with the patented\* Integral Rotor Technology with double tines made out of Hardox wear plates. Hardox combines extreme hardness and toughness which minimises wear of the rotor tines. The simple, maintenance free intake system guarantees aggressive intake at all times regardless of the various (crop) conditions. The short distance between rotor and pick-up yields an outstanding crop flow. This force-fed intake makes higher forward speeds possible for outstanding productivity and reduced crop damage.

\* Patent or patent pending in one or more countries

# CUTTING SYSTEMS

The KUHN OC cutting systems are designed for unlimited intake capacity and excellent cutting quality. They are acknowledged by users as one of the best cutting systems on the market. The silage is guided and drawn to the knives in an early stage which improves the flow and cutting performance and is also preventing unwanted blockage. The i-BIO+ is available with two different cutting units with 14 or 23 knives, both with group selection.



## OPTICUT 14

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 23-knife OPTICUT system provides intensive cutting with 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.



## ROTOR DISENGAGEMENT

In extreme circumstances double security is provided by a rotor disengagement clutch. The rotor drive can be disengaged from the bale chamber drive, allowing to bind and discharge the bale from the chamber.



## DROP-FLOOR

The intake unit is protected by the main PTO clutch. In case of a rotor blockage, the floor and knives can be lowered hydraulically from the tractor cab. After the blockage is cleared, they can easily be brought back into work position.





# CONSISTENT BALE SHAPE

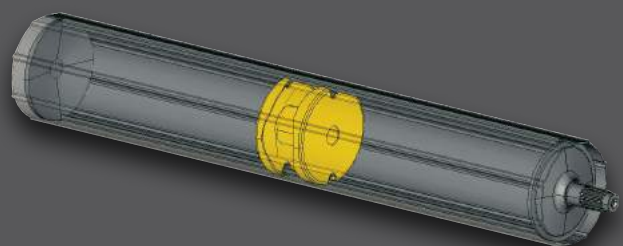
## THE IMPORTANCE OF BALE SHAPE

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

## 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+ exists of 18 rollers with 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



Bottom chamber segment



## DURABILITY

For an increase in reliability and lifespan of the machine, the Kuhn i-BIO+ has high-quality drive chains\* that ensure maximum strength. For even greater operational reliability of the machine, the i-BIO+ is equipped as standard with Beka Max continuous chain oiling system with brushes.



Standard Beka Max chain oiling system



Beka Max automatic bearing greasing system (optional)

\*1,25 inch main drive chain and 1 inch bale chamber chain





## NET BINDING

The net binder with active stretch technology assures 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.

KUHN's innovative design allows constant tension to the net during the binding process. The net wrap system runs at 90% of the bale's rotational speed, to be able to stretch the net instead of breaking. This provides an exact net tension in all crop and weather conditions. After leaving the bale chamber the bale will not expand and therefore remains its density.

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.





# FILM BINDING

## REVOLUTIONARY BREAKTHROUGH IN FILM BINDING!

A new unique feature as part of IntelliWrap on the i-BIO+ is the patented\* film binding system. Kuhn's film binding concept offers advantages by means of costs, the environment and ease of operation.

### HOW DOES IT WORK?

The patented\* film binding is a 2 reel film binding system which applies film on the cylindrical side of the bale in the bale chamber.

### ADVANTAGES COMPARED TO TRADITIONAL NET BINDING:

- Better silage quality: Due to increased bale oxygen barrier around the cylindrical side.
- Tighter wrapped bales: Pre-stretched film reduces bale expansion, resulting in maximum preservation.
- Improved bale shape: More cylindrical and compact bales resulting in more efficient handling and storage.
- Easy unwrapping: Film does not catch on the bale, even after long storage time and during frost periods.
- Waste management: Only one type of waste (same stretch film as used during wrapping).

### APPLICATION OF THE KUHN FILM BINDER OFFERS SEVERAL ADVANTAGES COMPARED TO OTHER AVAILABLE FILM BINDING SYSTEMS USING SPECIAL WIDE FILM;

- Standard stretch film (750 mm), no special wide film material needed.
- Up to 30% film cost savings for film binding due to higher stretch ratio\*\*.
- Larger intervals for exchange of film rolls.
- Optimised processing time as the beginning and end string are as short as possible due to the unique 2 reel concept.
- User friendly exchange of film rolls due to hydraulically folding film roll holding reels and limited weight per roll.
- No bale transfer, resulting in less film wraps needed.

\*Patent or patent pending in one or more countries  
 \*\* Based on film cost August 2015

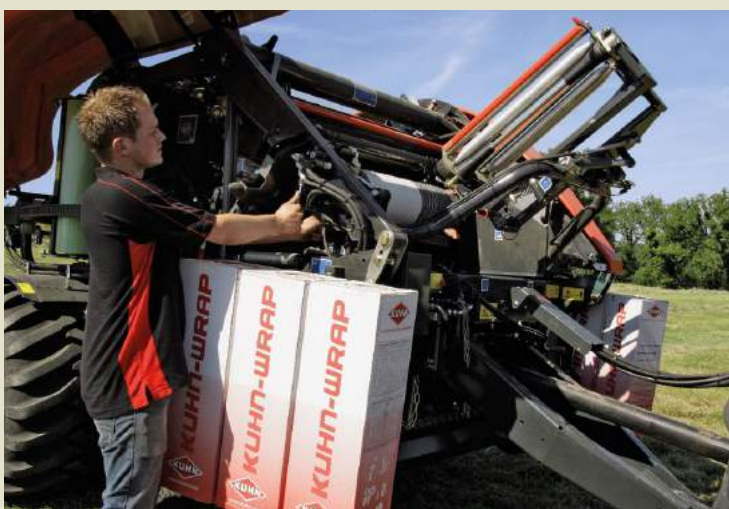
Easy exchange of film rolls;

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



Scan the code with your smartphone and check out our instruction video

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.





# INTELLIWRAP

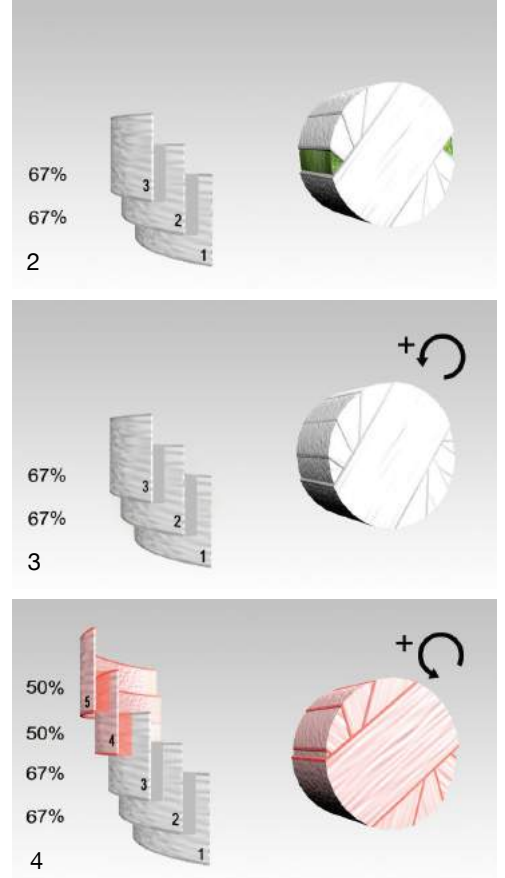
## EXCELLENT WRAPPING

By our unique IntelliWrap greater management and control of the wrapping process is achieved. 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 via the user friendly wrapping interface. IntelliWrap provides well-shaped, tightly sealed bales and therefore higher quality silage.

### 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 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.



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

# PRE-STRETCHERS



## 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.



## OPTIMUM SILAGE QUALITY

When wrapping with the KUHN i-BIO+ the bale remains in the bale chamber. When using a conventional bale wrap combination, the bale tends to expand while being transferred from bale chamber to wrapping table. Immediate wrapping of the bale limits the required amount of net-/filmwrap, limits unwanted expansion and optimises fermentation of the crop. As the bale is laying onto the lower part of the bale chamber wrapping on hilly slopes is no issue. The bale is held firmly in position supported by side rollers.

## 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, stretched 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.



# ELECTRONICS

## ISOBUS CONTROLLED



### ALWAYS IN CONTROL

The i-BIO+ is ISOBUS compatible. ISOBUS compatible tractors will therefore not require a separate control box for the baler. Alternatively, the VT50 or CCI monitor can be used with tractors that are not ISOBUS compatible. Operator settings, such as amount of net/film layers, automatic/manual binding start and selecting wrapping programs, are accessed via the monitor. Operator information, such as bale growth detection, wrapping process overview and number of bales, are also provided.



### VT 50

The KUHN ISOBUS VT 50 terminal has a 14,5 cm (5.7") colour screen with outstanding clarity. Adjustments can easily be done by the touch screen and the large soft-touch keys on the sides. The VT 50 terminal can be used specifically with the KUHN ISOBUS machines.

### CCI 200

The ISOBUS compatible CCI 200 terminal has a large 21,6 cm (8.5") colour screen with outstanding clarity. Baling adjustments can be easily made via the touch screen or by use of the intuitive, large, soft-touch keys. The CCI 200 terminal can also be used with many other ISOBUS compatible machines on the market.



# GRASSMASTER

SIMPLY GREAT FORAGE!

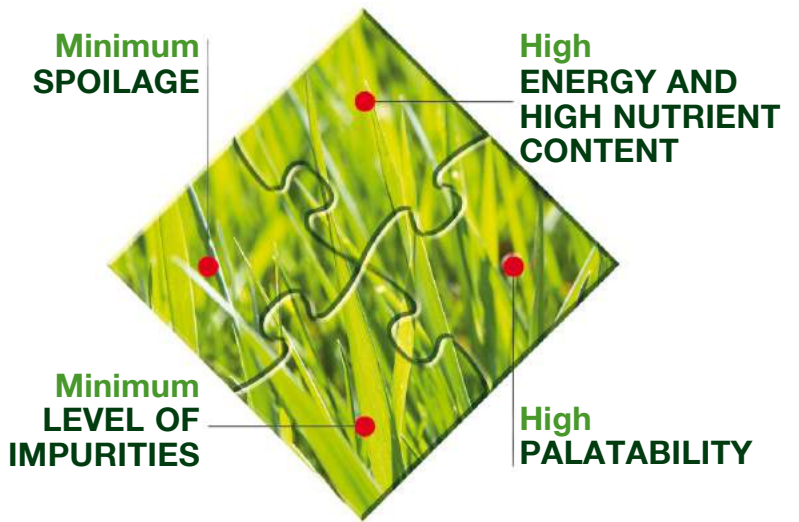


Did you know that you can save concentrates worth 89 €/ha and year, just by reducing the impurities in the forage from 4 to 2%\*? With KUHN GRASSMASTER, we are at your side to help you produce forage of top quality to realize according gains.

We would like to pass on our know-how in forage production, gathered during several decades of producing hay/silage making implements. We provide advice for you to produce first-class animal feed. We help you to understand the strong points of our machines in order that you can use them in an optimal way to preserve the quality of your forage.

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

With the expertise of KUHN GRASSMASTER, you will harvest forage with...



Find all our expertise on [www.kuhn-grassmaster.com](http://www.kuhn-grassmaster.com)



be strong, be **KUHN**

## KUHN PARTS

DESIGNED AND MANUFACTURED TO RIVAL TIME



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



## Specifications

	i-BIO+ OPTICUT 14	i-BIO+ OPTICUT 23
<b>Dimensions</b>		
Width	≥ 2.75 m	
Height / open balechamber	2.70 m	
Length	4.50 m	
Weight	≥ 3700 kg	≥ 3800 kg
<b>Pick-Up</b>		
Pick-Up width	2.30 m	
Number of tine rows	5	
Crop roller	As standard	
Pneumatic gauge wheels / pivoting	Standard / Optional	
<b>Intake</b>		
Intake unit	Cutting Rotor with tines made out of Hardox wear plates	
Theoretical cutting length	≥ 70 mm	≥ 45 mm
Knife protection	Individual spring protected	
Group selection knives	0 - 4 - 7 - 7 - 14	0 - 7 - 11 - 12 - 23
Rotor disengagement	As standard (Hydraulic optional)	
Drop floor	As standard	
<b>Bale chamber</b>		
Bale formation	18 PowerTrack rollers	
Diameter	1.25 m	
Width	1.22 m	
Stainless steel low friction plates	Integrated in bale chamber	
Automatic continuous chain oiling system (Beka Max)	As standard	
Automatic bearings greasing system	Optional	
Binding system	Net binding / net + film binding	
<b>Operation</b>		
ISOBUS Baler	As standard	
<b>Wrapping unit</b>		
Film width / storage	750 mm / up to 6 rolls	
½ table speed by end of film / tear	As standard	
Film break sensor	Optional	
<b>Wheels</b>		
Single axle 500/45-22.5	As standard	
Single axle 600/40-22.5	Optional	
Brake system	None / hydraulic / pneumatic	
<b>Others</b>		
PTO (min <sup>-1</sup> )	540	
Oil flow and pressure requirement	35 l/min at 180 bar	
Min hydraulic tractor equipment	1 single acting with 3/4" free return	
Min power requirement*	80 kW (110 hp)	

\* = Horsepower requirement may vary with different crops, conditions, and options used. Consult operators manual for proper tractor sizing.

# OPTIONS



Optional film binding



Bale turner, unloading the bale on its flat end



Several hitch options including a ball-hitch coupling



Different wheel sizes

i-BIO+

Bale In One

# FIND THE KUHN BALER, WHICH IS PERFECTLY ADAPTED TO YOUR NEEDS!

i-BIO+

Dimensions	I-BIO+ OPTICUT 14	I-BIO+ OPTICUT 23
Width	≥ 2.75 m	≥ 2.75 m
Height	2.70 m	2.70 m
Length	4.50 m	4.50 m
Weight	≥ 3700 kg	≥ 3800 kg

## CHECK OUT THE WHOLE KUHN BALER AND WRAPPER RANGE



1. Variable Balers - 2. Fixed BalePacks - 3. Fixed Balers - 4. Variable BalePacks - 5. Large Square Balers - 6. Round and Square bale Wrappers

### KUHN NORTH AMERICA, INC.

Corporate Headquarters - 1501 West Seventh Avenue  
P.O. Box 167 - Brodhead, WI 53520-0167 USA  
Phone : (608) 897-2131 - Fax : (608) 897-2561  
[www.kuhnnorthamerica.com](http://www.kuhnnorthamerica.com)

TO FIND YOUR NEAREST AUTHORIZED PARTNER VISIT

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

### KUHN FARM MACHINERY PTY. LTD

313-325 Foleys Rd - Deer Park, 3023, Victoria - Australia  
[www.kuhn.com.au](http://www.kuhn.com.au)

### United Kingdom KUHN FARM MACHINERY (U.K.) LTD

Stafford Park 7 - TELFORD - SHROPSHIRE TF 3 3 BQ  
Phone : TELFORD (01952) 239300/1/2 - Fax : (01952) 290091  
[www.kuhn.co.uk](http://www.kuhn.co.uk)

**You Tube**

Visit us  
on our YouTube channels.



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

Your Kuhn Dealer:

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 in one or several countries.

Also find KUHN on

