# VariPack Pro

ROUND BALERS







### **Integral Rotor**

for maximum throughputs Page 6

### Precision cutting system

for smooth and precise cuts

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### Automatic cleaning of belts and guide rollers

Two cleaning rollers

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#### Two drives

for reliable bale starts and perfect shapes

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and stroke end cushioned ram for fast unloading cycles

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#### Roll chute is standard

for easy net refills

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# KRONE VariPack Pro – Throughput and density in perfect harmony!

Thanks to the three endless belts, the individually adjustable bale density on the terminal and the very fast bale ejection, the high-performance baler is an efficient machine for forage harvesting.

The round baler 
precision and efficiency

# The KRONE EasyFlow pick-up

For clean rakes and a consistent flow into the machine



### The EasyFlow pick-up

The EasyFlow pick-up offers a 2.15 m work width for high hourly outputs. With its 6 mm thick double tines, it picks up even the widest swaths and feeds the material in a consistent flow to the rotor cutter. Pivoting and spring-loaded, EasyFlow provides perfect ground contouring even in the roughest terrain.



### Camless and good

KRONE had good reasons for opting against cam track controlled tines on the EasyFlow pick-up. Instead of using many moving parts that are prone to wear, EasyFlow has special strippers that ensure the tine angle is always right the length ideal.

#### **Robust double tines**

Measuring 6 mm in diameter and mounted with large coils, the tines are particularly vigorous and hard-wearing. Narrowly spaced at 55 mm, they pick up also short haulmed and heavy crops thoroughly and without contamination.







- A clean rake -
  - 2.15 m pick-up for thorough and consistent rakes without losses
- Safe 6 mm thick double tines with large diameter coils
- Durable and hard-wearing few moving parts reduce wear to a minimum

The wide EasyFlow pick-up makes sure no haulm is left on the ground even in difficult conditions and when working at high speeds. Thanks to its clutter-free build that relies on only very few moving parts, the unit stands out for minimum wear and maximum longevity.



### The crop press roller

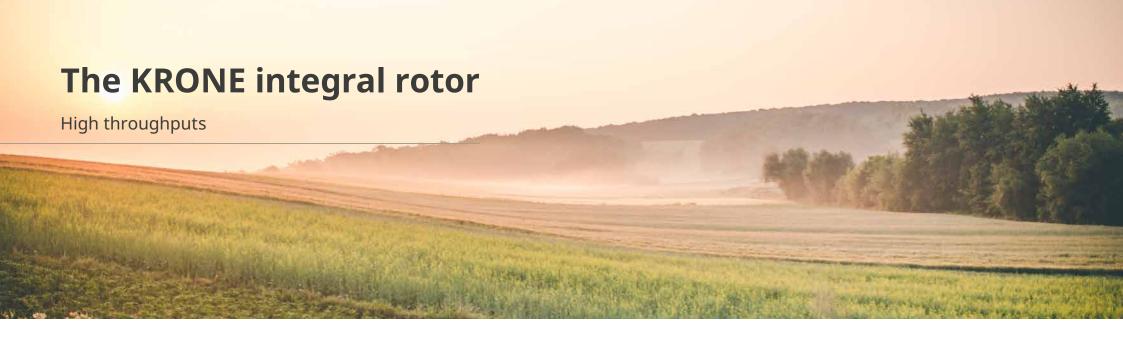
The crop press roller supports the work of the pick-up by detecting the size of the swath and preparing it for effective gathering. The height is altered on a simple mechanism for easy and fast use and adaptation to varying crops, swath volumes and work rates. This results in clean and thorough gathering.



### The pivoting gauge wheels

The EasyFlow pick-up rides on two castering gauge wheels that pivot flexibly for smooth tracking in all curves without scuffing. The working height of the pick-up is set without tools in a hole pattern.



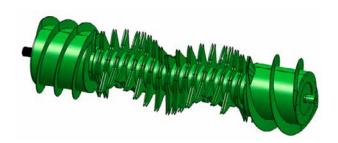


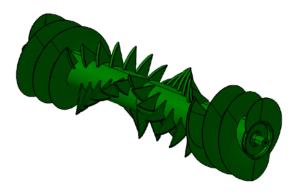
### The Integral rotor

VariPack has the feed auger integrated in both ends of the rotor cutter (left) and the feed rotor (right). This means that only one drive is required to power the pick-up and the rotor. Combining helical tines and augers on the same rotor optimises the material flow across the entire width of the rotor for high bale weights and perfect cuts. To minimise wear, the cutting rotor is made of Hardox.

### The compact design

Integrating the feed rollers in the rotor leads to a very consistent and dependable feed of material from the pick-up to the rotor – another boon for the overall crop flow and reliable machine performance.









- Precision cut the best quality thanks to the rotor for controlled cuts
- So sharp superior cutting quality
- So versatile 0/ 8/ 9/ 17 or 0/ 13/ 13/ 26 blades in work

The integral rotor is available with or without a cutting system. Rugged by design, the unit performs dependably and reliability in challenging conditions. The integral rotor has feed augers integrated at its ends, a design that leads to a significant reduction of the number of moving parts. Fewer moving parts translate into better cleaning, less service and maintenance and a longer lifespan.

#### The driveline

The pick-up and the Integral Rotor are driven by a 1 ¼inch chain. The simple and robust drive uses only few moving parts and makes for easy servicing and reduced wear.

### The quality of cut

The double tines pull the material in a consistent flow through the blades, preventing any haulm to slip through and leading to higher bale weights, because cut material is baled to higher densities. The helix ensures there is no peak load in the cutting system for smooth operation and quiet running. At the same time, the chevron-line of tines on the pick-up supplies the material in a consistent flow to the cutting system for an optimum throughput and uniform bale fills.



#### The blades

The blades have long, curved cutting edges for particularly fuel-efficient cuts as the grass is pulled past them. The wavy edges cut all types of crops precisely and also offer extended sharpness. All blades are identical and interchangeable.

### **Changing the blades**

To fit or remove the blades, simply lower the blade cassette. To unlock the blades, all blade levers of the single blade locking device are swivelled away simultaneously. Last, remove the blades conveniently from above.

### The individual blade protection

Each blade is spring-loaded for individual protection against damage. Whenever it is hit by an object it retracts from the crop flow and automatically returns into working position after the object has passed. The other blades remain unaffected by this and continue cutting, ensuring a consistent quality of cut.











### The blade group

KRONE VariPack V 165 XC Pro and V 190 XC Pro have a 26-blade cutting system that can be selected in groups of 0, 13, 13, or 26 blades to give cutting lengths of 84 mm or 42 mm. The change is made fast and simple for easy adjustment to varying conditions. Also, the option of using the same number of blades in two different groups allows you to use sharp blades all day long – also throughout very long working days. Before a group of blades is selected, the selector shaft makes a 360° revolution which removes the debris in this area ensuring continued precision control of each individual blade.

### Selecting a group

The operator selects a group of blades and activates it hydraulically from the convenience of the cab.

### The blade group control system

The individual blades are operated hydraulically. This ensures accurate control as they move into and out of the crop flow and is just another detail to optimize the overall performance of the machine.

### The KRONE bale chamber

For maximum densities

### **Dimensionally stable bales**

- Effective three smooth belts form dry crops into high-density bales
- Fast baling at a circumferential speed of 130 m/min
- Clean actively cleaned belts
- Exact baling pressure and soft core are set on the terminal

The VariPack Pro chamber is made up of three endless belts that feature a smooth surface. This design makes VariPack the specialist baler for dry material such as straw, hay and haylage. The belts are constantly cleaned by two rollers so they can reliably keep up their good work. The soft core kit allows you to produce bales for specific applications.



#### Bale sizes

The VariPack Pro model range is designed to deliver various bale diameters. VariPack V 165 (XC) Pro produces 0.80-1.65 m diameter bales. VariPack V 190 (XC) Pro churns out 0.80-1.90 m diameters. This way you can tailor the size of the bales to individual customer applications, for example feeding or drying.



### Setting the soft core

With the VariPack Pro, the baling density can be infinitely adjusted in three zones directly from the terminal. The belt tension can be used to achieve different baling pressures in the various bale areas. This ensures that the bales are optimally baled for their intended use – for example, with maximum density for long transport distances or with a soft core for subsequent drying.





### The bale chamber

The rolls are spaced in close vicinity so they transfer the drive power reliably to the belts. This in turn makes for reliable bale starts and continued roll in the filled chamber.

### **Drives on both sides**

The belt rolls are driven by two drive rollers to ensure an absolutely dependable bale start. The main drive is powered from the right machine side, the second drive is powered from the left machine side.

### The cleaning rollers

VariPack Pro has two cleaning rollers These clean the belts and the guide rolls, ensuring a consistent powerflow to the belts. One of the two cleaning roller is powered to warrant optimal performance.



### Net wrapping

The cradle lowers for convenient replacement of the net roll. Arranged at a low height, it is readily accessible from one of the two steps.

### **Easy refills**

Net or twine refills are very easy. Simply fold out the chute on the left hand side and slide the fresh roll into the cradle. You no longer lift the heavy roll into the cradle.









- Straightforward the net threads easily through the rigid net feeder
- Great visibility the operator watches the process on the move
- Easy use net/film feed starts automatically when the chamber is filled

The VariPack Pro twine / net film wrapping system is simple, extremely reliable and easy to operate. The net chute folds out and into position so the roll is easily transferred to the cradle. The rigid net feeder makes for an easy net feed into the chamber. Spare net and twine rolls are stored on the machine to keep going on long working days.

### Net wrap - simplicity by design

The fresh roll slides down the chute and into the cradle. It couldn't be easier for operators. Then the net is threaded into the chamber, which is equally easy thanks to the rigid net feeder. Next, run the net over the swing and into the chamber. This again is made easier after the upstream roller disappeared here.



### Spare net supply

There is room to store one roll of net wrap on each side of the machine. This gives you plenty of net supply that keeps you going during long working days.



# The KRONE bale ejector

Ready to roll the next bale within seconds

### **Brief downtimes**

- Swift less than five-second open/close cycles
- Efficient hydraulic cylinders with stroke end cushioning
- Convenient automatic rear door control

Highest densities and outputs are the outstanding landmark features of VariPack Pro. More than that, these models also score on a simple design and exemplary accessibility. All this translates into particularly easy servicing and maintenance. The hydraulic cylinders that operate the rear door have stroke end cushioning and the rear door is controlled automatically for fast unloading cycles and maximum throughputs. The bale ejector lowers the bales safely and gently to the ground, also on the slope.



### The auto rear door feature

The rear door and the net wrapping cycle are controlled automatically so all tying/wrapping is optimized to minimize downtime and maximize throughputs.







### Hydraulic cylinder with stroke end cushioning

To reduce the time the tractor spends waiting for the bale to leave the chamber, the hydraulic cylinders have stroke end cushioning which allows them to operate the door fast. Minimum downtime translates into maximum throughputs after all. At the same time, end of stroke cushioning slows down the door as it closes and therefore reduces machine wear.

### The bale ejector

Keeping halts as short as possible is critical for high productivity in round baling. Therefore unloading the bale effectively and fast is the key feature of the bale ejector. At the same time, the ejector is designed to give optimum access to the blades.

### Precise placement on slopes

The optional bale clamp can be used to hold the bale securely on slopes. The clamp can be closed using an additional control unit and the bale is collected after the tailgate is opened. When the bale is secure, the clamp can be opened again.





### VariPack V 165 (XC) Pro

The V 165 (XC) Pro is the more compact model of the two. Its chamber is designed to bale 0.80-1.65~m diameter bales.

### VariPack V 190 (XC) Pro

VariPack V 190 (XC) Pro is the second model in the range. The chamber on this model produces 0.80 m and 1.90 m bales.













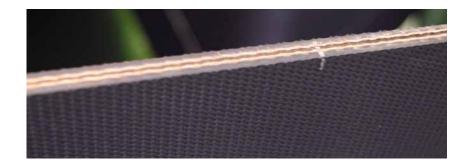
### Take your pick

- Versatile –
   four models with or without cutting system give various bale diameters
- Variable flexible 0.80-1.65 /1.90 m diameters
- Convenient set bale diameters on the terminal

The VariPack Pro range lines up four models – This means you can choose between the compact VariPack V 165 (XC) Pro on the one hand and the VariPack V 190 (XC) Pro for larger bales on the other. The models have different bale chambers but are identical in all other features.

### Setting up made easy

Adjusting the bale diameter is as easy as it gets. Simply enter the target size in increments of 1 cm to the terminal. This convenient feature allows you to tailor the bale to specific applications.



### The heavy-duty and grippy belts

The VariPack Pro bale chamber is formed of three endless belts. Made from rubber with two embedded fabric layers, these belts offer maximum flexibility and strength for maximum lifetime. The grippy material combines with the special surface design of the belts for excellent belt-crop contact and no slip for reliable machine performance.



### **Load Sensing**

All VariPack Pro models have load sensing as a standard feature which reduces the number of hydraulic lines that need coupling. Load sensing also saves tractor power, because the pump supplies the remotes only on demand. In addition, the feature allows operators to select multiple functions from the terminal and the convenience of the cab.

### The tyres and the brake

Three different tyre options are available for VariPack Pro: 500/55-20 12 PR, 500/60 R 22.5 and 600/50 R 22.5. The air brake is a standard feature.











### **Optimal handling**

- Load Sensing -Few connections and gentle on the tractor
- Hitching choices various attachment options for all conditions
- Gentle treading three tyre options for optimal protection of the turf

VariPack Pro is the machine for quick travel between fields, for undulating and boggy terrain and easy shunting in tight space. A wide range of additional options ensure the KRONE VariPack Pro is perfectly geared to deliver in your specific conditions.

### The hitch ring

VariPack Pro has a standard 40 mm hitch ring for bottom- or top-mount attachment. A notch system adjusts the drawbar quickly to the required attachment height. In addition, three more hitch options are available to suit various needs in specific countries.



#### The ball hitch

An 80 ball hitch is also available for VariPack Pro for bottom attachment. This warrants smoothest rides, better manoeuvrability and minimum wear.



### The accessories

For any type of condition

# The perfect level of specification

- Versatile and flexible applying net and twine
- Convenient –
   LED work lights and a CCTV camera system for full control
- Smart moisture sensing technology keeps the operator up to date

VariPack Pro is designed for maximum performance and density. A number of options are available that help boost your productivity in special conditions. For example, working lights and cameras ensure you always have a clear view out over the machine and the moisture sensor informs you on the current moisture level of the crop.





### The LED light package

This package adds comfort and includes LED work lights for all service and maintenance points plus reflective strips under the panels and also rear lights. These lights are a boon when changing net rolls and cleaning the machine at night. Also, they improve visibility around the machine as well as general safety in the field.



### The moisture sensing system

The moisture sensor sends material data to the cab so you know exactly the quality of the material you are harvesting so spoilage and moulding is no issue.



### The camera system

A camera monitors the machine assemblies and the immediate surroundings of the VariPack, thereby improving both operator comfort and road safety. Can be ideally combined with the CCI terminals or the 7" monitor – to ensure perfect control in every situation



# **Easy servicing**

Less time spent on service and maintenance maximum reliability



### The steps

The two steps on the front give convenient access to the net/twine unit. Swapping net rolls as well as cleaning and servicing is easy and convenient now.



#### The stand

VariPack Pro has a mechanical stand as a standard feature. This makes for safe stability when parked. The two-speed gearbox on the stand is easy to operate for low-effort and fast control. It can swing to the side to provide generous ground clearance when harvesting high-volume swaths.



### The power cutting clutch

This dog clutch on the right machine side can cut the power flow to the intake system which stops rotating so you can finish a bale despite a blockage in the intake system. At the same time, the rotor revolves freely to give ready access to the blades.







### The auto lubricator

VariPack Pro has an auto lubricator that minimizes servicing and maximizes machine life.

### **Great longevity**

- Readily accessible all service points are in easy reach
- Operator comfort –

   a central lubricator takes care of all grease points
- Hitching choices various attachments suit every tractor end

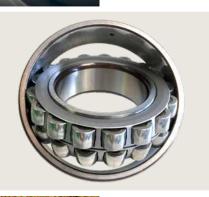
VariPack is designed as a simple machine where all service and maintenance points are readily accessible. All grease points are grouped and the chains are automatically lubricated – details that reduce the time spent servicing and increase your productivity. Further comfort details are automatic tensioners on the three drive chains.





### The chain lubricator

The drive chain is lubricated automatically for quiet running and long service life. The easy-adjust piston pump allows you to apply the proper attention to each chain.



### The bearings

The bearings that are built into VariPack Pro are heavy duty and have special seals which are lubricated automatically for maximum service life.

## The KRONE terminals

Clear, intuitive and convenient use



#### The DS 500 terminal

The DS 500 terminal has a user-friendly 5.7inch touch screen, twelve keys and a dial on the back. The unit can be used for VariPack Pro but also for other KRONE machines.



### The CCI 800 and CCI 1200 operating terminals

The CCI 800 and CCI 1200 operator terminals are equipped with large 8" or 12" colour displays with touch function which display the machine controls and camera footage side by side on the same screen. Both terminals are ISOBUS-compatible and therefore prepared for use with other machines.







### Straightforward operation

- Take your choice our control units suit all needs
- Convenient clear and user-friendly interfaces
- Compatible –
  the ISOBUS tractor terminal is a standard feature
- High technology the baler controls the tractor

The KRONE Comfort electronic system brings fun to the field, making your work a lot easier and faster. ISOBUS compatibility and TIM readiness are standard features on VariPack Pro and offer operators a wide range of opportunities. Choose from various terminals and find the unit that best serves your specific needs.





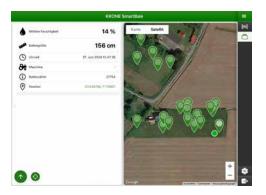
#### **Any tractor-based ISOBUS terminal**

You can also use the terminal on your ISOBUS compatible tractors to operate the VariPack Pro. If your tractor has an ISOBUS terminal, you won't need an extra terminal in the cab.



#### Option: Baler controls tractor thanks to TIM

TIM (Tractor Implement Management) is an option that allows your machine to communicate with the tractor and control it. This means the baler automatically stops the tractor to start the tying cycle, opens the rear door when tying is completed and closes the door after the bale has been deposited. TIM reduces operator fatigue, downtime, fuel consumption and leads to more uniform bales and boosted productivity.



### KRONE SmartBale app

KRONE SmartBale displays all deposited round and square bales on a bale map. Depending on the baler equipment, the SmartBale app provides additional information such as moisture, weight, dimensions and whether the crops have been cut. Moist bales are colour-coded so that they can be easily identified and stored separately.

# **Technical data**

Variable bale diameters with or without cutting system



			Round balers			
			VariPack V 165 Pro	VariPack V 165 XC Pro	VariPack V 190 Pro	VariPack V 190 XC Pro
Bale size (diameter x width)		approx. m	0.80 - 1.65 x 1.20 (2'8" - 5'5" x 3'11")		0.80 - 1.90 x 1.20 (2'8" - 6'3" x 3'11")	
XCut rotor cutter	nominal chop length from 17 blades	approx. mm	-	64	-	64
	nominal chop length from 26 blades	approx. mm	-	42	-	42
Machine dimensions (I by w by h)*		approx. m	4.90 x 2.75 x 2.98 (16'1" x 9" x 9'9")		4.90 x 2.75 x 3.05 (16'1" x 9" x 10")	
Tractor power***		approx. kW/hp	74/100		74/100	
Tractor attachment	40 mm hitch ring		Standard Option		Standard	
	80 hitch ball				Option	
Pick-up work width****		approx. m	2,15 (7'1")		2,15 (7'1")	
Wrapping system	Net		Standard		Standard	
Axles	Single axle including compressed air, parking and hydraulic brakes		Standard		Standard	
Tyres	500/55-20 12 PR		Standard		Standard	
	500/60 R 22.5		Option		Option	
	600/50 R 22.5		Option		Option	
Operator terminals	DS 500		Option		Option	
	CCI 800		Option		Option	
	CCI 1200		Option		Option	
Hydraulic system			Load Sensing or pressure circuit		Load Sensing or pressure circuit	
Optional accessories			Camera system, safety chain, LED working lights, various drawbar eyes, additional blades*****, additional warranty, additional hoses for opening and closing the tailgate and for controlling the pick-up via the tractor control unit			

All specifications, weights and dimensions do not necessarily comply with standard specifications and are therefore not binding. Specifications are subject to change without notice. \*Different measures may apply depending on the tyres fitted, \*\*2.55 m width when the guide wheel is removed, \*\*\*depending on the crop harvested, machine specification and harvest conditions, \*\*\*\*with five tine rows, \*\*\*\*\*VariPack V 165 XC Pro and VariPack V 190 XC Pro



# The KRONE net wrap

For any challenge



### KRONE excellent StrongEdge<sup>2</sup>

This is the extra strong net among the KRONE net wrap products. By interlacing two warp threads into a single strand, we achieve excellent tear resistance, larger meshing and excellent UV-stability. These properties make it the perfect option for recovering robust crops in sun-intensive regions. Specially developed to meet the requirements of highly compressed VariPack bales, it offers an excellent tear resistance.



### **KRONE excellent Edge X-tra**

The tried-and-tested KRONE excellent Edge X-tra is ideal for any crops and any round baler and covers the bale slightly beyond its edges. Its perfect edge to edge spreading technology protects your valuable crop and achieves optimum results.



### KRONE excellent SmartEdge<sup>2</sup>

To be able to offer a good alternative to customers which have simple product requirements, a "smart" version of our proven high-end net wraps excellent Edge X-tra has been developed – the KRONE excellent SmartEdge<sup>2</sup>. This is a net wrap with a good cost-benefit ratio which, at a reasonable price, far exceeds basic quality requirements and achieves good results at any time.

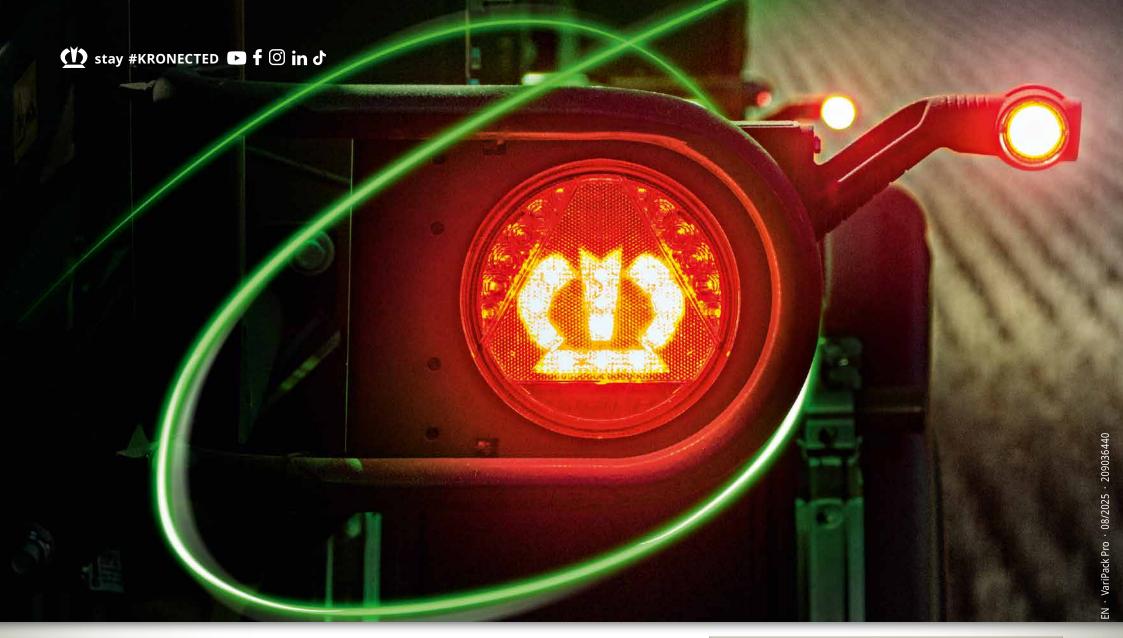


Your KRONE nets are available from your KRONE dealer – simply scan the QR code!

### **Perfectly wrapped**

- Always the correct wrap genuine KRONE net and film wraps
- High-quality material resistant to tear and puncture
- Matching –Proper quality for all harvesting conditions
- Peace of mind perfect bales for perfect harvest results

The KRONE excellent bale packaging – rely on the genuine product. There are many reasons to opt for genuine net wraps and silage films. Genuine wraps reduce the costs per bales substantially, protect your valuable crop and lead to higher-quality forage. KRONE excellent bale packaging pays dividends.





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