



# VariPack Plus

Round balers





# VariPack Plus

Round balers

- High-performance baler designed for dry material
- Camless EasyFlow pick-up with chevron-lined tines and a minimum of moving parts
- Integral Rotor for maximum throughputs
- Precision cutting system for smooth and precise cuts
- Two drives for reliable bale starts and perfect shapes



- Two cleaning rollers for automatic belt cleaning
- Exceptionally high densities
- **Roll chute is standard for easy net refills**
- Auto controlled rear door and stroke end cushioned ram for fast unloading cycles
- Automatic grease applicator and oil lubricator



The KRONE VariPack Plus is specifically designed for baling dry material. VariPack Plus combines straightforward engineering with high throughputs and densities.

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# The KRONE **EasyFlow pick-up**

- **Reliable and effective** – 6 mm double tines arranged in a chevron-line and large-diameter coils
- **A clean rake** – 2.15 m pick-up for thorough and consistent rakes without losses
- **Durable and hard-wearing** – few moving parts reduce wear to a minimum

The EasyFlow pick-up pivots 70 mm sideways and is renowned for persevering and diligent performance in the most difficult conditions and at high work rates. 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 EasyFlow pick-up**

The EasyFlow pick-up offers a 2.15 m work width for high hourly outputs. Its double tines are arranged in a chevron-line to reliably pick up even the widest swaths and feed 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.

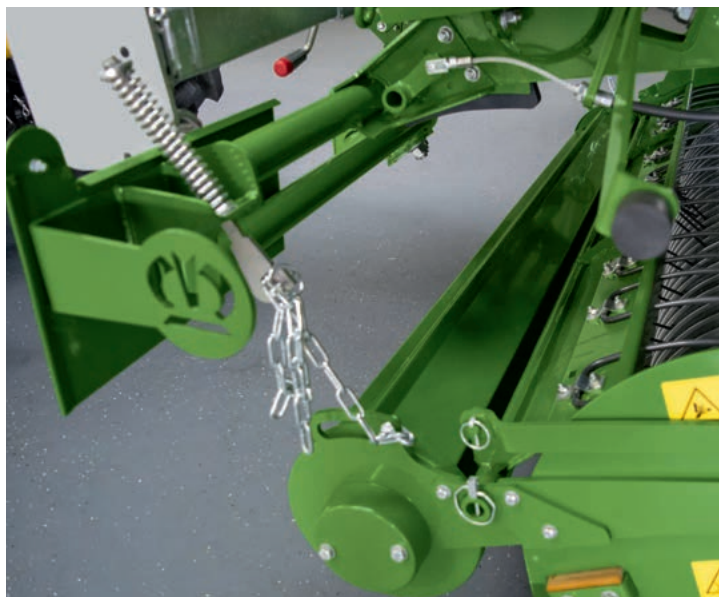
## **Double tines in chevron-lines**

Measuring 6 mm in diameter and mounted with large coils, the tines are particularly vigorous and hard-wearing. The special arrangement of the pick-up tines combines with the integral rotor to distribute the material perfectly across the chamber width for uniform bales. Narrowly spaced at 55 mm, these tines allow EasyFlow to pick up even short and heavy crops without losses.



#### **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 castoring 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.





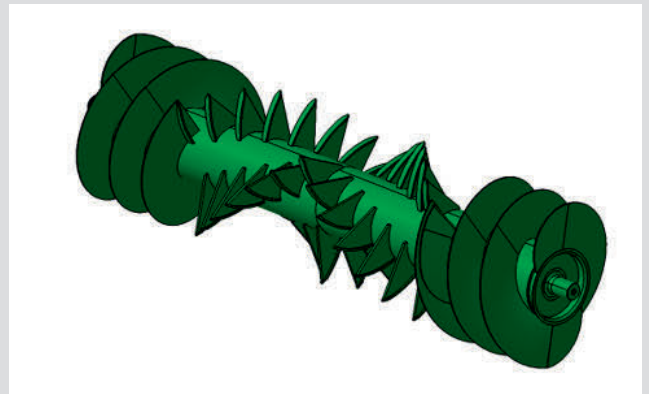
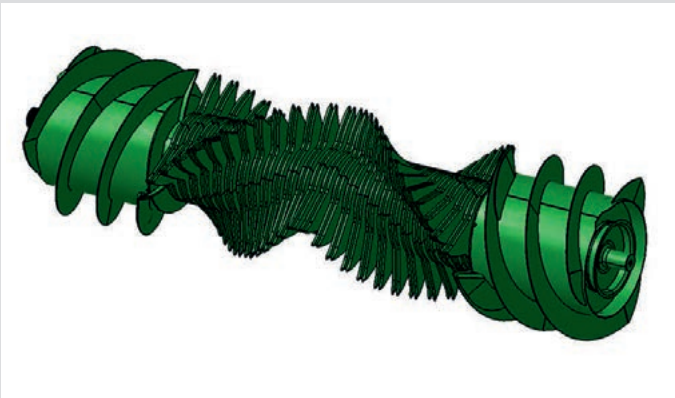
# The KRONE **Integral Rotor**

- **Versatile and flexible** – choice of an integral feed rotor or an integral rotor cutter with 26 blades
- **Precision cut** – the best quality from controlled cuts
- **So sharp** – superior cutting quality
- **So versatile** – 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.



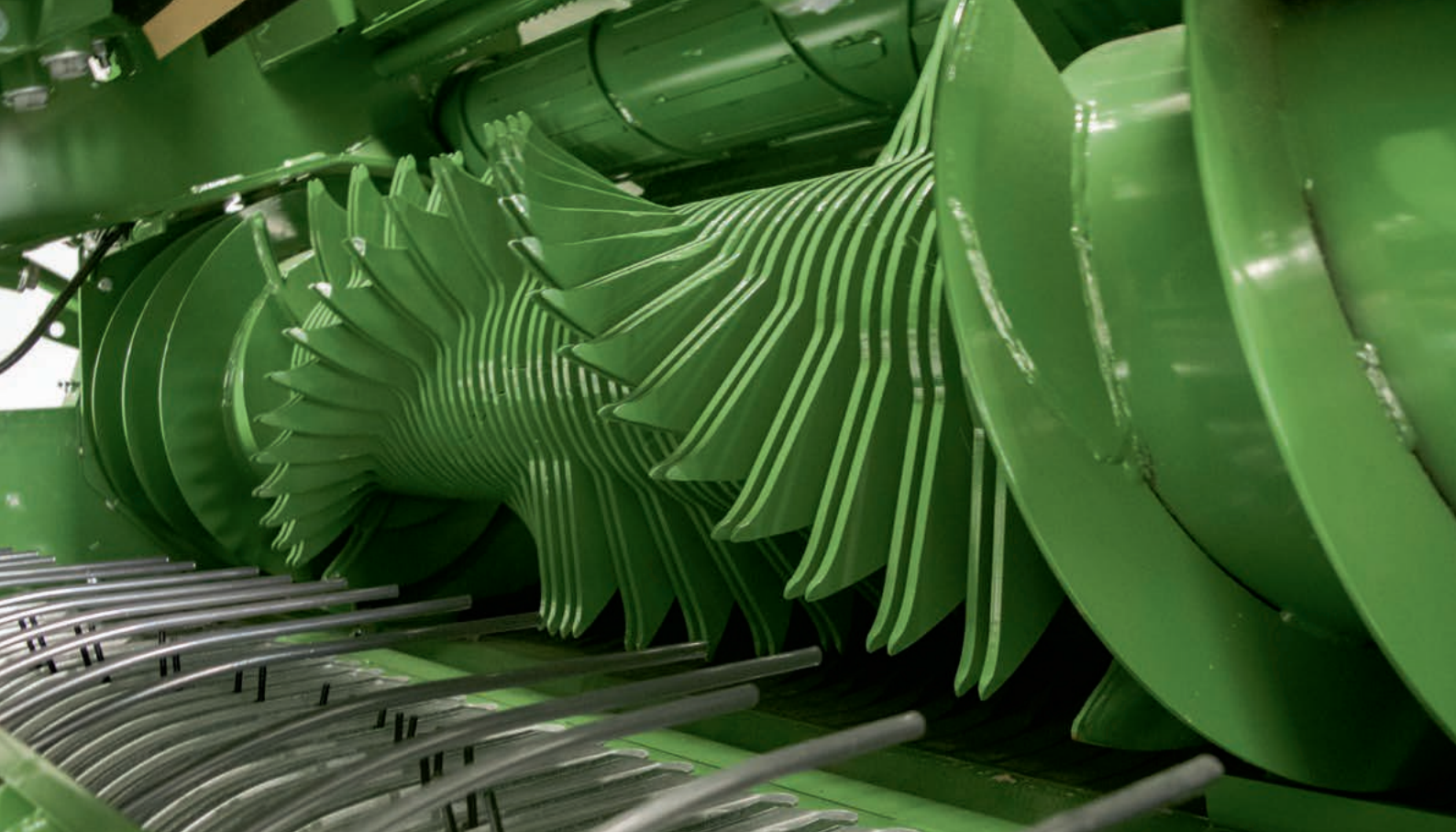
## **The Integral rotor**

VariPack Plus 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.



## **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.



#### **The driveline**

The pick-up and the Integral Rotor are driven by a 1 1/4 inch 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 KRONE cutting system

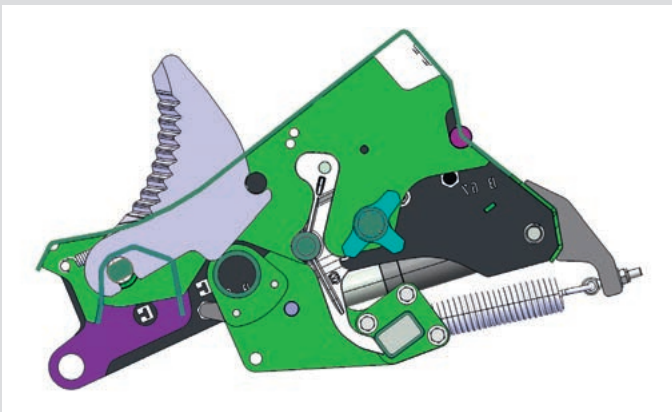
- The VariPack XC Plus cutting system has 26 blades
- The blade group control operates 0/13/13/26 blades
- Each group is conveniently selected from the cab.

The cutting system on a VariPack Plus has 26 blades that can be selected in groups of 0/13/13/26 blades to give cutting lengths of 84 mm or 42 mm and deliver best results in all conditions. A potential blockage is quickly removed simply by dropping the floor.



## 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.



## 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 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 Plus and V 190 XC Plus 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.

### Changing the blades

To fit or remove the blades, simply lower the blade cassette. Then release the springs on all blades by operating a single lever. Last, remove the blades conveniently from above.





# The KRONE bale chamber

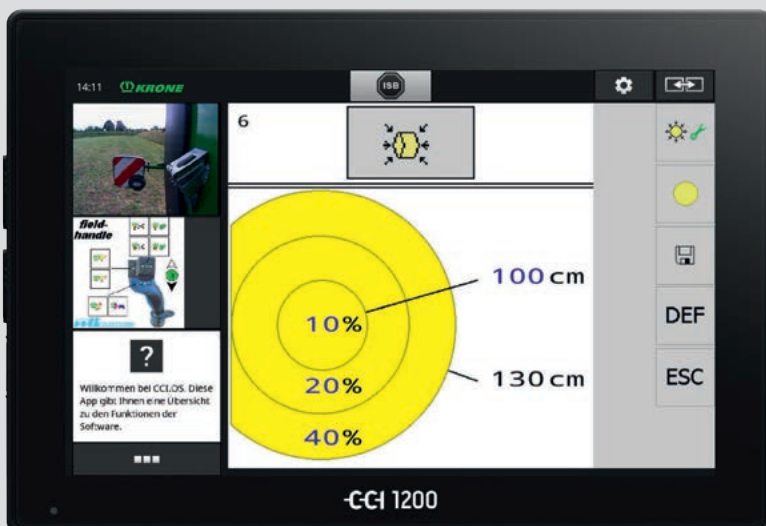
- **Effective** – three smooth belts form dry crops into high-density bales
- **Fast** – baling at a circumferential speed of 130 m/min
- **Clean** – actively cleaned belts
- **Exact** – baling pressure and soft core are set on the terminal

The VariPack Plus 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 Plus model range is designed to deliver various bale diameters. VariPack V 165 (XC) Plus produces 0.80-1.65 m diameter bales. VariPack V 190 (XC) Plus 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

Enter the core density and the density of the inner and outer layers on the operator terminal and the machine produces bales to individual customer requirements and applications. Maximum density, for example, is typically used for long-distance haulage whereas a soft core is preferred in drying applications.



**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 from either side of the machine to ensure an absolutely dependable bale start.



**The cleaning rollers**

VariPack Plus has two cleaning rollers that remove debris from the belts and ensure reliable belt drive. One of the two cleaning roller is powered to warrant optimal performance.



# KRONE net wrapping

- **Versatile and flexible** – applying net and twine
- **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 Plus 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 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.



### 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 rear door

- **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 Plus. 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.



### 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.



**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.





## The **model line-up**

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

The VariPack Plus range lines up four models – the compact VariPack 165 (XC) Plus and the large-diameter VariPack 190 (XC) Plus. The models have different bale chambers but are identical in all other features.



### **VariPack V 165 (XC) Plus**

The V 165 XC Plus 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) Plus**

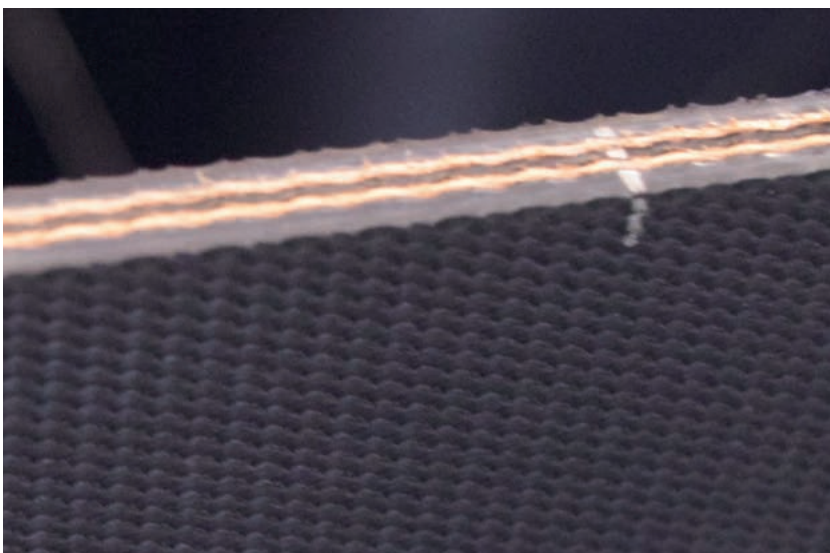
VariPack V 190 (XC) Plus is the second model in the range. The chamber on this model produces 0.80 m and 1.90 m bales.





### 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 Plus 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.



# Tyres and attachment

- **Load Sensing** – only few hydraulic connections
- **Hitching choices** – various attachment options for all conditions
- **Gentle treading** – three tyre options for optimal protection of the turf

VariPack Plus 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 Plus is perfectly geared to deliver in your specific conditions.



## Load Sensing

All VariPack Plus 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 Plus: 500/55-20 12 PR, 500/60 R 22.5 and 600/50 R 22.5. The air brake is a standard feature.



#### The hitch ring

VariPack Plus 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 Plus for bottom attachment. This warrants smoothest rides, better manoeuvrability and minimum wear.

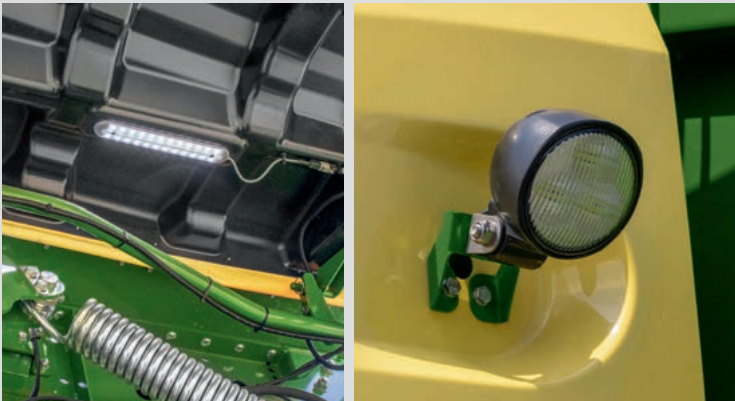




## The accessories

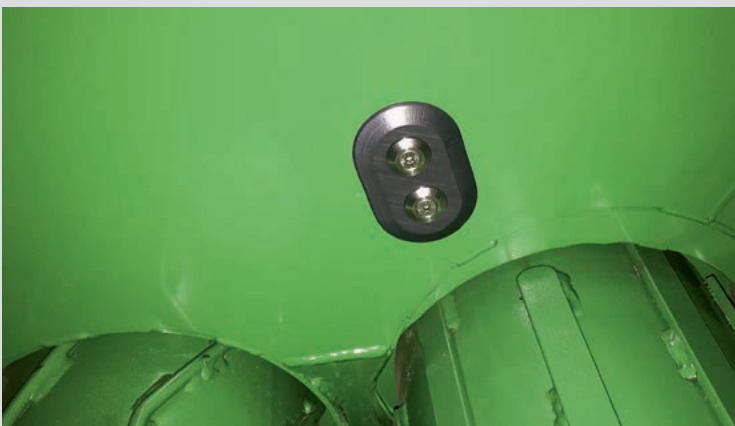
- **Versatile and flexible** – applying net and twine
- **Convenient** – LED work lights and a CCTV camera system for full control
- **Smart** – moisture sensing technology keeps the operator up to date

VariPack Plus 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, thereby improving both operator comfort and road safety. The camera feeds are either viewed on a separate screen or on a CCI terminal.



#### The twine tying system

This is an option that can be added to the standard net wrapping unit. The machine will then have a twine box on one side which stores twelve balls of twine for sufficient supply of twine during long working days.



#### Easy servicing on a twine machine

Simply pull out the twine box to gain ready access to all service points and drives for cleaning.





# Serviceability

- **Readily accessible** – all components are easy to get to
- **Operator comfort** – a central lubricator takes care of all grease points
- **Hitching choices** – various attachments suit every tractor end

Not only is VariPack Plus designed for highest densities and outputs but it also stands out for an uncluttered layout and exemplary access to all service points. All this translates into particularly easy servicing and maintenance. The standard auto lubricator and the automatic chain lubricator minimize the time spent on servicing the machine.



## 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 Plus 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.



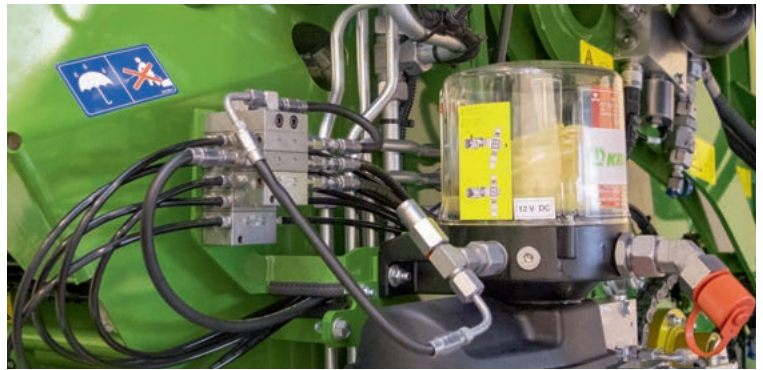
## The power cutting clutch

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



### 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 Plus are heavy duty and have special seals which are lubricated automatically for maximum service life.



# The KRONE operator terminals

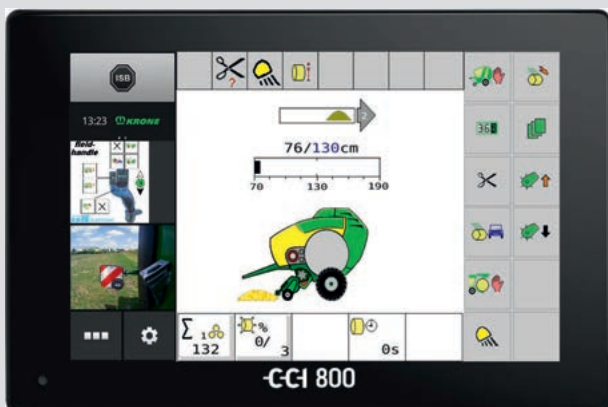
- **Take your choice** – our control units suit all needs
- **Convenient** – clear and user-friendly interfaces
- **Compatible** – the ISOBUS tractor terminal is a standard feature
- **High technology** – the baler controls the tractor

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 Plus and offer operators a wide range of opportunities. Choose from various terminals and find the unit that best serves your specific needs.



## 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 Plus but also for other KRONE machines.



## The CCI 800 terminal

The CCI 800 is the ISOBUS terminal with an 8.0inch touch screen and 12 function keys. It can be extended by a joystick or a camera system for optimum operator comfort. A function is selected by pressing an icon on the left hand side. It can be extended by a joystick or a camera system for optimum operator comfort. A function is selected by pressing an icon on the left hand side.





### The CCI 1200 terminal

Offering a large 12.1inch colour touch screen, this terminal has two side-by-side views, one view showing the camera feeds and one the individual machine functions. The CCI 1200 is an ISOBUS terminal that is universally compatible with different machines and makes.



### Any tractor-based ISOBUS terminal

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



### TIM – the baler manages the tractor

TIM (Tractor Implement Management) is standard specification and allows your machine to communicate with the tractor and control it. TIM reduces operator fatigue, downtime, fuel consumption and leads to more uniform bales and boosted productivity.





# Technical data

- Four models for professional baling operations and dry crops.
- Variable bale diameters
- Heavy-duty drivelines on both machines

		Round balers			
		VariPack V 165 Plus	VariPack V 165 XC Plus	VariPack V 190 Plus	VariPack V 190 XC Plus
<b>Bale size (diameter x width)</b>	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")	
<b>XCut rotor cutter</b>					
nominal chop length from 13 blades	approx. mm	-	84	-	84
nominal chop length from 26 blades	approx. mm	-	42	-	42
<b>Machine dimensions (l x w x h*)</b>	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')	
<b>Tractor input</b>					
down to specific crop, machine specification and conditions	approx. kW/hp	74/100		74/100	
<b>Tractor attachment</b>					
40 mm hitch ring		Standard		Standard	
80 hitch ball		Option		Option	
<b>Pick-up (five rows of tines)</b>	approx. m	2.15 (7'1")		2.15 (7'1")	
<b>Wrapping system</b>					
Net		Standard		Standard	
Net and twine		Option		Option	
<b>Axles</b>		Standard		Standard	
single-axle incl. pneumatic, park, hydraulic brake					
<b>Tyre options</b>					
500/55-20 12 PR		Standard		Standard	
500/60 R 22.5		Option		Option	
600/50 R 22.5		Option		Option	
<b>Operator terminals</b>					
DS 500		Option		Option	
CCI 800		Option		Option	
CCI 1200		Option		Option	
<b>Hydraulic system</b>		Load Sensing or pressure circuit		Load Sensing or pressure circuit	
<b>Optional accessories</b>		Camera system, locking chain, LED work lights, choice of hitch rings, extended guarantee, extra hydraulic lines for opening / closing the rear door and for operating the pick-up from the in-cab control unit.	Camera system, locking chain, LED work lights, choice of hitch rings, spare, blades, extended guarantee, extra hydraulic lines for opening / closing the rear door and for operating the pick-up from the in-cab control unit.	Camera system, locking chain, LED work lights, choice of hitch rings, extended guarantee, extra hydraulic lines for opening / closing the rear door and for operating the pick-up from the in-cab control unit.	Camera system, locking chain, LED work lights, choice of hitch rings, spare, blades, extended guarantee, extra hydraulic lines for opening / closing the rear door and for operating the pick-up from the in-cab 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.



## The KRONE net wraps

- **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.



### KRONE excellent Edge X-tra

KRONE excellent Edge X-tra combines the qualities of our well-proven Edge and RoundEdge nets into one high-quality and universal KRONE net. Edge X-tra spreads exactly from edge to edge and is the best option in any crop and for every round baler. Its perfect edge to edge spreading technology protects your valuable crop and achieves optimum results.



### KRONE excellent StrongEdge

This is the extra strong net among the KRONE net wrap products. Knurling two threads into one single warp thread, this net offers an enormous resistance to tearing, has larger meshes and excellent UV-stability – properties that make it particularly suitable for use in hot and sunny regions and coarse material.

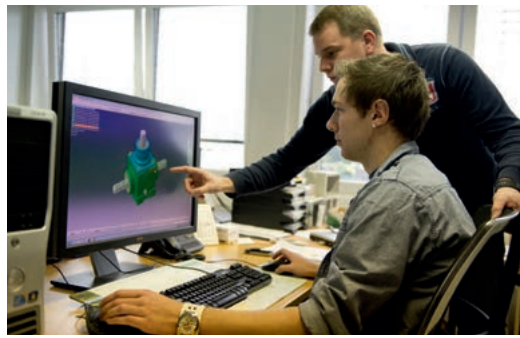


### KRONE excellent SmartEdge<sup>2</sup>

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.

# Maschinenfabrik Bernard KRONE

Perfect in every detail



Innovative, proficient and close to our customers – these are the keywords that mark the philosophy of our family-owned company. As a forage specialist, KRONE manufactures disc mowers, tedders, rakes, forage wagons and silage trailers, round and square balers as well as the high-capacity and self-propelled BiG M mower conditioners and our BiG X forage harvesters. Quality made in Spelle – since 1906.

Your KRONE dealer



**Maschinenfabrik Bernard KRONE GmbH & Co. KG**

Heinrich-Krone-Straße 10  
D-48480 Spelle

Phone: +49 (0) 5977 935-0  
Fax: +49 (0) 5977 935-339

[info.ldm@krone.de](mailto:info.ldm@krone.de) | [www.krone.de](http://www.krone.de)