

VariPack

EN

ROUND BALERS



VariPack

Round balers



EasyFlow
and a minimum of moving parts

Page 4

Integral feed rotor and integral rotor cutter

for maximum throughputs

Page 6

Blade cutting system

on XC models for precision and smooth cuts

Page 8

Effective bale start and roll

for reliable bale starts and perfect shapes

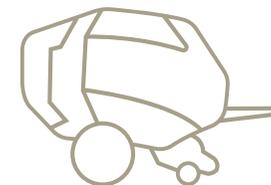
Page 11

Auto chain oiler and grease banks
reduce time spent servicing

Page 22

Optional chute
for easy net refills

Page 12



VariPack
– the powerful roundbaler

KRONE VariPack is a belt baler that was specifically designed for baling dry crops. The design focuses on simple technology, high throughputs and high baling densities.

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. The robust double tines gather the material effectively and feed it in a very consistent flow to the feed rotor and rotor cutter. The spring-loaded EasyFlow provides perfect ground contouring even in the roughest terrain.



Camless and good

KRONE has purposely removed the cam track from the EasyFlow for controlling the tines. 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.

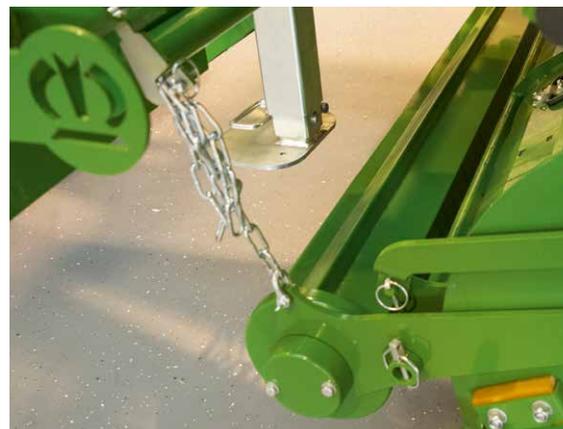




Uniform crop flow

- **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.



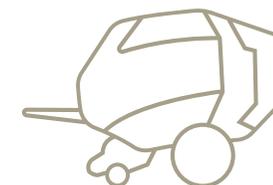
The crop press roller

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 guide wheels

The pick-up runs on two gauge wheels the height of which is set easily and fast without the need of tools and simply by refitting a pin.



The KRONE integral rotor

High throughputs

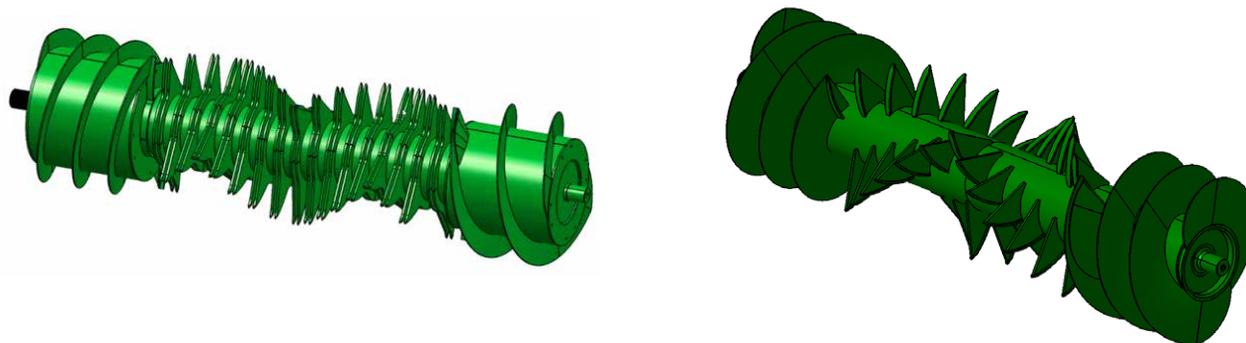


The Integral rotor

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. This ensures high bale weights and perfect cutting quality. 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.



Simple design

- **Variable** – choice of integral feed rotor or integral cutting rotor with 17 blades
- **Powerful** – the 530 mm rotor ensures massive throughputs
- **Consistent flow** – the rotor with integrated feed roller provides a uniform crop flow
- **Precision cut** – the best quality thanks to the rotor for controlled cuts
- **Making things easy** – the floor beneath the cut-and-feed assembly drops hydraulically for convenient removal of blockages

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 drive

The pick-up and the integral rotor are driven by one shared 1 1/4 inch chain. The simple and robust drive uses only few moving parts and makes for easy servicing and reduced wear.



The drop floor

The floor under the cut-and-feed rotor drops at a flick of a button to remove blockages conveniently from the cab. With the floor down, the pto is operated to clear the blockage. Then the floor is raised again and baling continues.



The KRONE XCut cutting system

Precision has a name - *KRONE XCut*



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.

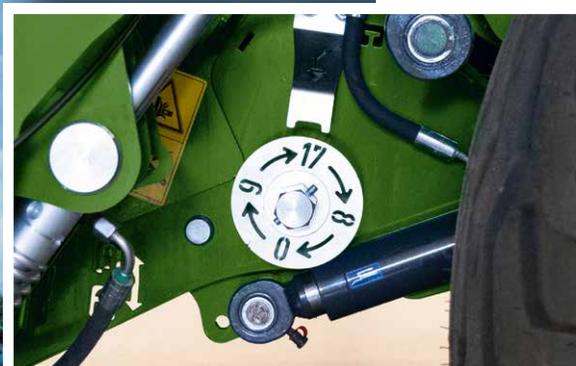
Changing the blades

The blades are installed and removed when the blade cassette is swivelled downwards. To unlock the blades, all blade levers of the single blade locking device are swivelled away simultaneously. The blades can then be easily removed upwards with the user in a comfortable position.

The individual blade protection

Each blade is spring-loaded for individual impact protection. 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

VariPack 165 XC and 190 XC have a 17-blade cutting system. The number of blades in work is selected manually in groups of 0/8/9/17 from a control on the machine. Then you operate a lever that moves the group into position to give cutting lengths of 128 mm or 64 mm. The change is 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.

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.

The power cutting clutch

This standard-fit dog clutch on the right machine side cuts off the powerflow to the intake system so the operator can rotate the rotor manually for convenient blade changes.

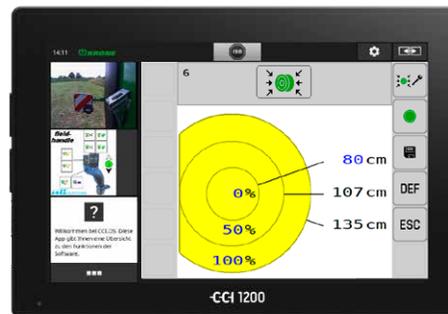
The KRONE bale chamber

For maximum densities

Well-shaped bales

- **Effective** – three smooth belts form dry crops into high-density bales
- **Fast** – baling at a circumferential speed of 110 m/min
- **Convenient** – the baling pressure and the soft core are set on the terminal

The VariPack bale 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 and hay. The soft core kit allows you to produce bales for specific applications.



Bale sizes

The VariPack model range is designed to deliver various bale diameters. The bales of the VariPack V 165 (XC) have a diameter of 0.80 to 1.65 m. The VariPack V 190 (XC) enables diameters between 0.80 and 1.90 m. This means that the size of the bales can be adjusted to other applications, e.g. to specific portion sizes in feeding or specific diameters in bale 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.



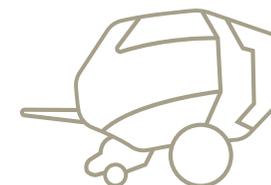
The bale chamber

The starter roller and the two net rollers combine with the shallow angle of the chamber belts to deliver smooth bale starts. They also ensure reliable bale roll when the chamber is filled to capacity.



The drives for the belts

In order to reliably set the material in rotation, power is transmitted to the drive roll of the belts via a robust chain drive. A second belt drive is available as an option.



The KRONE net wrap system

Visible from the cab, *reliable functionality*

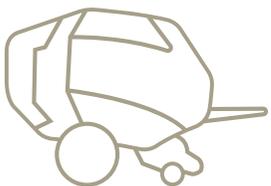


Net wrapping

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 roll changes are very easy. Simply fold out the optional chute on the left hand side and slide the new roll into the cradle. You no longer lift the heavy roll into the cradle.



Quick changeover

- **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 twine / net film wrapping system is simple, very reliable and easy to operate. The optional net chute helps handling the heavy net roll. It folds out and down to accommodate the roll and slides it into 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.



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

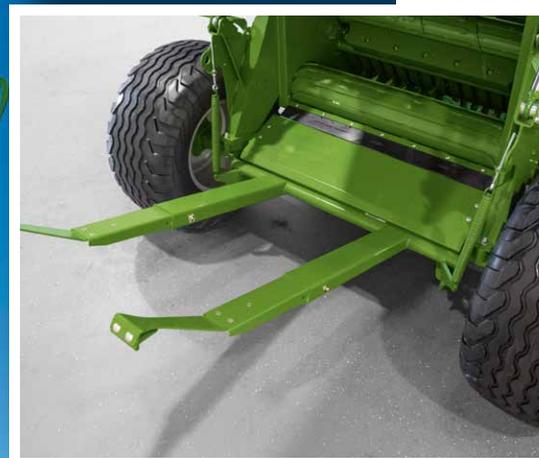
- **Swift** –
less than five-second open/close cycles
- **Efficient** –
hydraulic cylinders with stroke end cushioning

Highest densities and outputs are the outstanding landmark features of VariPack. 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 for fast unloading cycles and maximum throughputs. An optional bale ejector is available for controlled bale depositing also on slopes.



The rear door

An audible alarm signals the end of the net wrapping cycle. Then the operator opens the rear door by operating a spool. The bale is dropped and the door closes. This takes only a few seconds before the tractor is moving again.



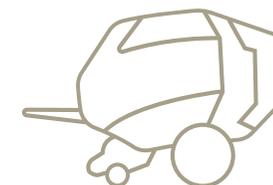
The bale ejector

Keeping halts as short as possible is critical for high productivity in round baling. Therefore unloading the bale effectively and fast – a task the optional bale ejector does reliably. Thanks to its open shape, the ejector provides optimum accessibility to the blades.



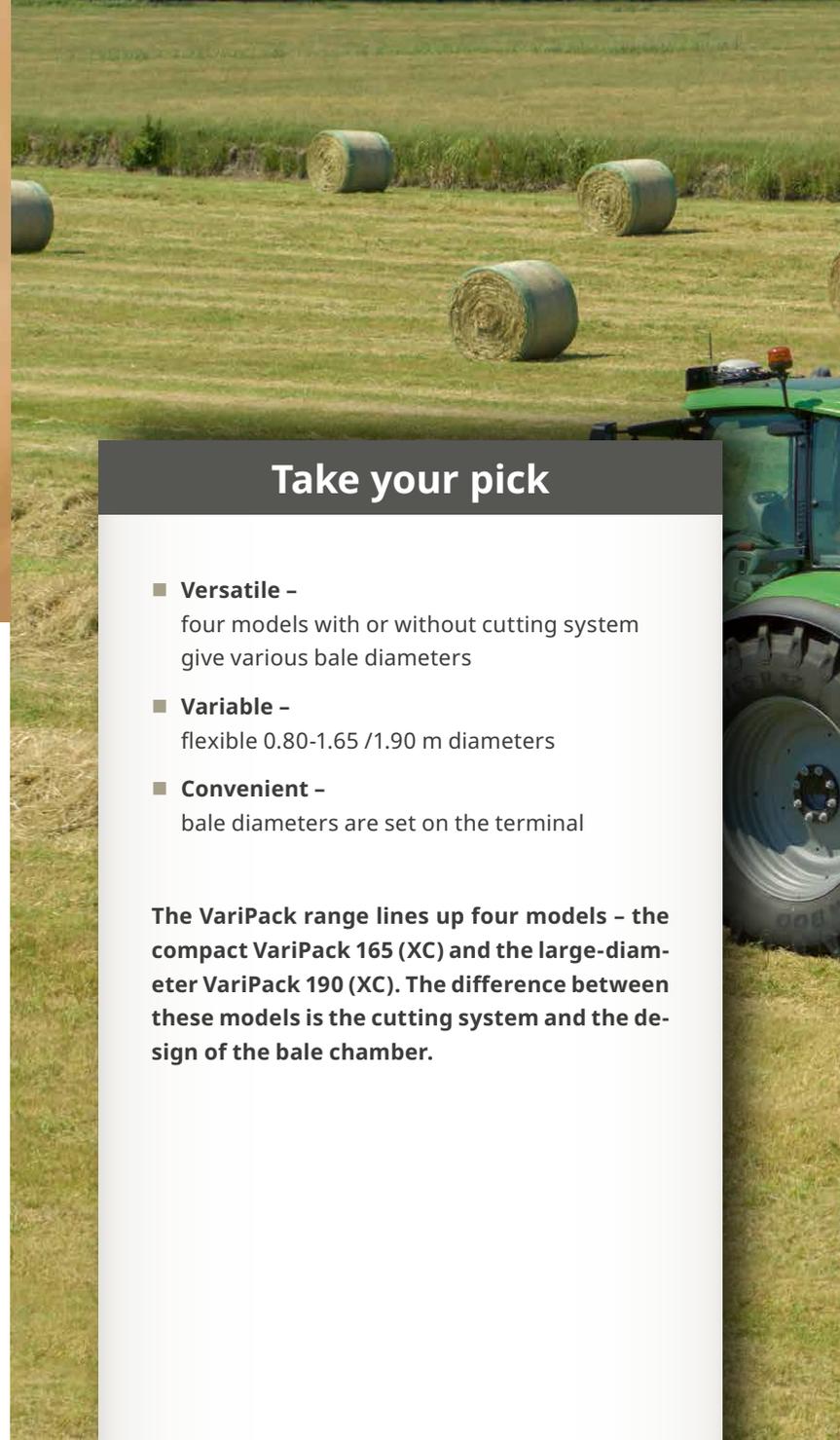
Precise placement on slopes

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.



Various models

For the best *bale diameter*



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** – bale diameters are set on the terminal

The VariPack range lines up four models – the compact VariPack 165 (XC) and the large-diameter VariPack 190 (XC). The difference between these models is the cutting system and the design of the bale chamber.

VariPack V 165 (XC)

The most compact model in the range is the VariPack V 165 (XC) Its chamber is designed to bale 0.80-1.65 m diameter bales.



VariPack V 190 (XC)

The next model is the VariPack V 190 (XC). 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 core of the VariPack is formed of three endless baling 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.

Small tyres and slim drawbar

Translate into great agility

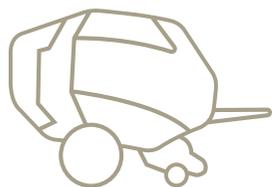


The tyres

The VariPack can be fitted with two flotation tyres. The machine is fitted with 500/50-17 10 PR tyres as standard. The VariPack is optionally available with 500/55-20 12 PR tyres.

Optional brake

VariPack runs on a single single axle that has no brakes as standard but is available with an optional brake system.





Optimal handling

- **Hitching choices** – various attachment options for all conditions
- **Protects the crop** – Different tyre variants for optimum soil protection
- **Safe stopping** – a brake system is available as an option

VariPack 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 Vari-Pack is perfectly geared to deliver in your specific conditions.

The hitch ring

VariPack has a standard 40 mm hitch ring for bottom- or top-mount attachment. A notch system adjusts the draw-bar 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 for bottom attachment. This warrants smoothest rides, better manoeuvrability and minimum wear.



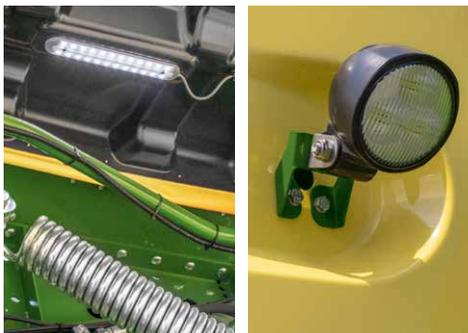
The accessories

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 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 the operator can choose the baling pressure to suit. At the same time, you are free to choose wrapping or not wrapping.



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.



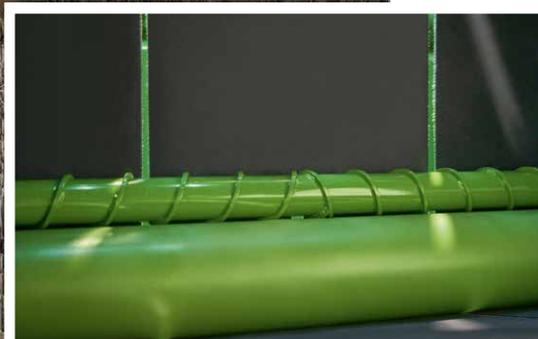
The twine tying system

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.



The cleaning rollers

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

Ease of maintenance

Reduce maintenance effort – *maximise operational reliability*



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.



Grouped grease nipples

All grease points on VariPack are grouped into lube banks for convenient and fast servicing and a longer machine life.



The drive chains

KRONE is the first manufacturer to use only three drive chains to drive all assemblies, a design that obviously also reduces the number of wear parts. In addition to that, chain slack is easily adjusted by automatic chain tensioners with scales.

Great longevity

- **Readily accessible** – all service points are in easy reach
- **Convenient** – automatic chain lubrication and grouped grease nipples
- **Unique** – as few as three chains drive all assemblies
- **Practical** – automatic chain tensioners with scales are easily adjusted

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 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 has a mechanical stand as a standard feature. This makes for safe stability when parked. It can swing to the side to provide generous ground clearance when harvesting high-volume swaths.

The KRONE terminals

Clear, intuitive and convenient use



The DS 100 operation unit

The DS 100 control unit controls all VariPack functions from the convenience of the cab. The buttons are grouped for intuitive use without looking. This allows the driver to concentrate fully on the machine.



The DS 500 operating terminal

The DS 500 terminal has a user-friendly 5.7inch touch screen, twelve keys and a dial on the back. The unit is not only used for VariPack but also for all other KRONE machines. The DS 500 can also be combined with an AUX joystick to make operation even more user-friendly.



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.





Simple control concept

- **Take your choice** – our control units suit all needs
- **Convenient** – clear and user-friendly interfaces
- **Compatible** – the ISOBUS tractor terminal is a standard feature
- **Option** – TIM Tractor Implement Control sees the baler control the tractor

The **KRONE on-board Comfort electronics streamline, improve and accelerate all steps of baling**. All this makes the baler fun to use. Various **KRONE operating terminals** are available for the different tasks.



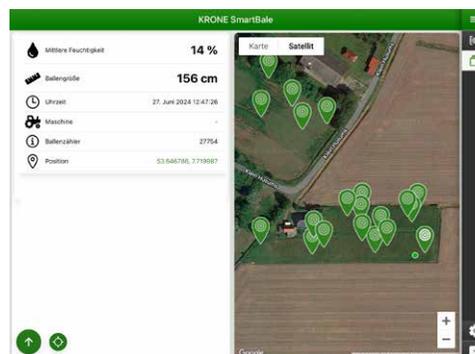
The tractor's own ISOBUS terminal

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



Optional TIM – the baler manages the tractor

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 therefore reduces the driver's workload, minimises downtime, saves fuel, produces more uniform bales and increases efficiency.



KRONE SmartBale app

NEW

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	VariPack V 165 XC	VariPack V 190	VariPack V 190 XC	
Bale size (diameter x width)		approx. m	0.80 - 1.65 x 1.20 (2'8"-5'5" / 3'11")		0.80 - 1.90 x 1.20 (2'8"-6'3" / 3'11")	
XCut rotor cutter	nominal cutting length with half the number of blades in work nominal	approx. mm	-	128	-	128
	cutting lengths with 17 blades	approx. mm	-	64	-	64
Machine dimensions (l by w by h)*		approx. m	4.90 x 2.59** x 2.98 (16'1" x 8'6"*** x 9'9")		5.00 x 2.59** x 3.05 (16'5" x 8'6"*** x 10')	
Tractor power***		approx. kW/hp	67/90		67/90	
Hitch	40 mm hitch ring		Standard		Standard	
	80 hitch ball		Optional		Optional	
Pick-up work width		approx. m	2.15 (7'1")		2.15 (7'1")	
Wrapping system	Net		Standard		Standard	
	Net and twine		Optional		Optional	
Axles	Single axle without brake		Standard		Standard	
	Single axle including compressed air, parking and hydraulic brakes		Optional		Optional	
Tyres	500/50-17 10 PR		Standard		Standard	
	500/55-20 12 PR		Optional		Optional	
Operator terminals	DS 100		Optional		Optional	
	DS 500		Optional		Optional	
	CCI 800		Optional		Optional	
	CCI 1200		Optional		Optional	
Hydraulic system		2 sa + free return	1 sa, 1 da + free return	2 sa + free return	1 sa, 1 da + free return	
Other optional accessories		2nd drive, bale clamp, camera system, safety chain, LED working lights, moisture measurement, various drawbar eyes, additional blades, additional warranty				
AEF-certified for		UT, AUX-N, TC-BAS, TIM		UT, AUX-N, TC-BAS, TIM		

The KRONE net wrap

For any challenge

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.



KRONE excellent StrongEdge

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 high-density VariPack bales, it offers an impressive tear strength of 320 kgf.



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 SmartEdge²

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 SmartEdge². 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 GmbH & Co. KG
Heinrich-Krone-Straße 10
D-48480 Spelle
Phone: +49 (0) 5977 935-0
info.ldm@krone.de | www.krone-agriculture.com

Your KRONE dealer