KRONE

THE POWER OF GREEN

Fortima

Round balers

Fortima

Round balers

- Fixed and variable chamber models
- Fixed chamber models for 1.25 m (4'1") or 1.55 m (5'1") diameter bales
- Variable chamber models for 1.00 m to 1.80 m (3'3" - 5'11") diameter bales
- The camless **EasyFlow** pick-up
- Feeding or cutting rotor

- Proven chain-and-slat elevator with meshing effect
- Low power input
- High baling densities
- Net and/or twine wrapping
- Simple, low-maintenance design
- Optional tandem axle

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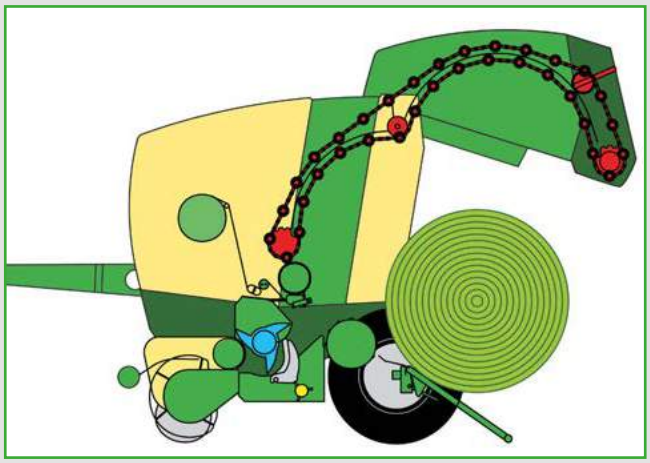
The fixed chamber **Fortima F**

- The round baler Fortima F 1250 and F 1600
- The round baler with cutting system Fortima F 1250 MC and F 1600 MC
- 1.25 m (4'1") or 1.55 (5'1") m diameter bales

Take advantage of the headstart you get from the fixed-chamber round balers Fortima F 1250 and F 1600 with and without MultiCut cutting system. Boasting a host of unique features – the camless pick-up, the chain-and-slat elevator, the simple design, top durability and low maintenance – these balers mean quick payback on your investment.



The KRONE fixed chamber principle
The chain-and-slat elevator adds layer after layer to the rolling bale, forming tight and well-shaped round bales. The chain-and-slat elevator scores especially on its superior feeding ability. Rolling starts earlier and so the baling cycle finishes earlier as well. The elevator also creates a firmer core and packs more weight and density into each bale, which translates into higher quality silage and better exploitation of truck capacities.

The enclosed bale chamber
The KRONE concept of the all-enclosed bale chamber and the chain-and-slat elevator has proven paramountly well in the most diverse harvest conditions around the world.

The elevator tensioner
The chain-and-slat elevator has a tensioning system that makes sure the elevator maintains the correct tension and that frees operators from retensioning the elevator frequently.

The drives
The Fortima fixed chamber baler stands out for its simple design that requires only few drive chains, a concept that reduces tractor inputs and service and maintenance but offers extra dependability.

The bale ejector
The ejector throws the bale clear of the rear door and also serves as a tray that collects the bale. The benefit? You can start the next cycle while the rear door is still closing.

The variable bale chamber **Fortima V**

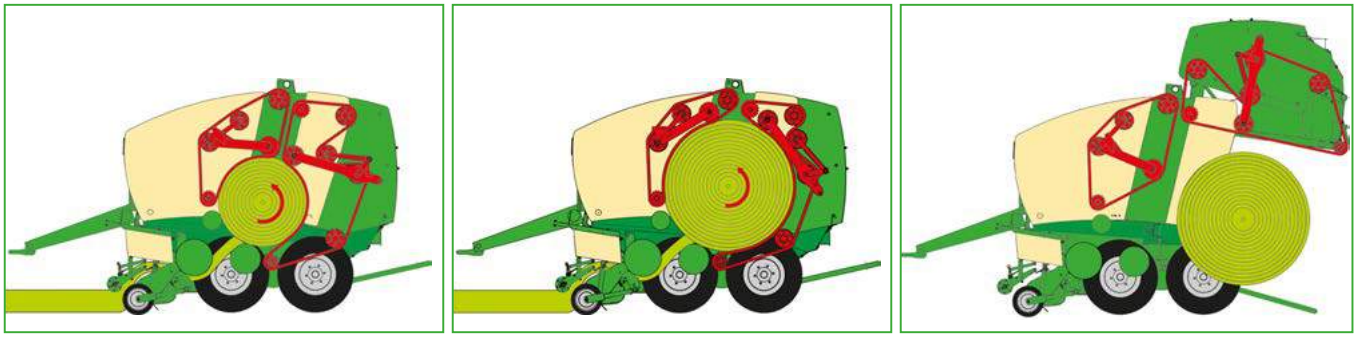
- The round balers Fortima V 1500 and V 1800
- The round balers with cutting system: Fortima V 1500 MC and V 1800 MC
- Infinitely variable bale diameters from 1.00 m to 1.50 m (3'3" - 4'11") or 1.00 to 1.80 m (3'3" - 5'11")

The variable chamber round balers Fortima V 1500 and V 1800 meet all requirements. One machine produces 1.00 m to 1.50 m (3'3" - 4'11") or 1.00 to 1.80 m (3'3" - 5'11") diameter bales to cater for grass silage applications where smaller bale sizes are preferred as well as applications in hay and straw where larger bales are typical.

Small-diameter bales
Small diameters are typical in silage making, because small bales are easier to handle, break up and feed. The 1.00 - 1.30 m (3'3" - 4'3") diameter bales produced by Fortima V 1500 suit most wrappers perfectly.

Big bales
Large-diameter bales are often preferred in straw and hay as they offer better efficiency, save on wrapping material and reduce labour costs.

The chain-and-slat elevators
Fortima is equipped with two chain-and-slat elevators, one operating at the front end and the other at the rear to develop high baling pressures and produce perfectly shaped bales.



The variable bale chamber
As more material enters the bale chamber, the two chain elevators press layer by layer to form tight and well-shaped round bales. The slats mesh with the crop to provide positive bale rotation at any stage of the baling cycle. The baling pressure is supplied by a hydraulic ram that actuates the tensioning arms at the front and rear ends. As soon as the bale has reached its preset diameter, twine or net wrapping is triggered. As a last step, the tailgate opens and the bale is ejected.

The variable bale chamber **Fortima V**

Further details

- The bale density is controlled infinitely variably
- The extra spiral roller speeds up bale starts
- The optional bale ejector ejects the bale actively

We at KRONE understand the needs of farmers. Providing high bale densities, KRONE balers are extremely robust, uncluttered and perfectly specified. Last but not least, they offer superior operational reliability.

Adjusting the bale density
The variable bale chamber features two hydraulic rams that alter the bale density infinitely variably after the pressure is set on a spool valve that comes with a pressure gauge.

High-density and well-shaped bales
On the variable chamber model, two hydraulic rams, one on either side of the rear door, exert the full baling pressure at the rear of the baling chamber.

Positive bale starts
Fortima features an extra spiral roller with raised bars that is fitted in addition to the starter roller – a design that ensures quick bale starts and optimizes the baling process.

Bale ejection guaranteed
On the variable chamber model, the optional ejector is linked to the rear door and tips as the door opens, allowing the bale to roll onto the ground and clear of the closing door. There is no need to reverse the tractor at the end of a wrapping cycle.

The perfect solution

Drive chains are few and far between. Few chains mean greater efficiency and better operational reliability.

Powerful driveline

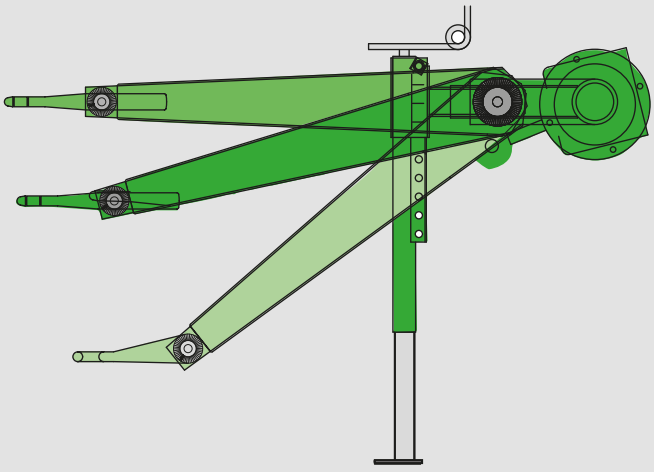
The main gearbox (540 rpm) is arranged centrally. Here, the incoming power is split and sent on to either side, a design that cuts down on driveline lengths and optimizes the power flow to the pick-up, the feed rotor or rotor cutter and the chain-and-slat elevator.

The **hitch options** and the **running gears**

- Auto-levelling in undulating terrain
- Outstanding operator comfort
- Excellent tracking

Special conditions require special equipment. To meet all our customers' requirements, Fortima is available with a wide range of running gear. Choose from standard and tandem setups, braked and unbraked versions as well as air and hydraulic brakes (export version).

Tractor attachment
Pin hitch, swinging drawbar, trailer hitch or ball hitch: You can order the Fortima balers with a 40mm hitch ring for top hitching, a 40/50mm hitch ring for bottom hitching, the 80 hitch ball or the height-adjustable drawbar to suit your specific tractor back end.



The stand
The stand adjusts to different heights thanks to a threaded head spindle. Its telescoping end can be retracted to increase the ground clearance in voluminous windrows.

The tyre choice
The standard axle is available with 11.5/80-15.3/10 PR to 500/50-17/10 PR sized tyres. Large flotation tyres reduce the risk of ground compaction and prevent rutting.

The tandem axle
The optional tandem axle gives soft, quiet and safe running. The choice of tyres available ranges from 11.5/80-15.3/10 PR to 19.0/45-17/10 PR.

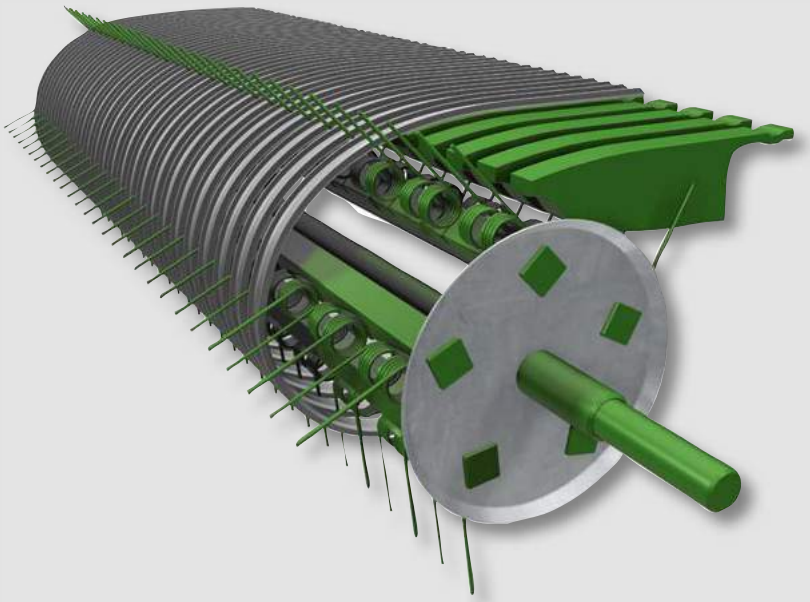
The air brake
An air brake system is available as optional specification for Fortima V 1500. Export models can be specified with hydraulic brakes.

The KRONE **EasyFlow** pick-up

- Impeccable pick-up for higher outputs
- Smooth running
- Minimum wear – minimum maintenance

EasyFlow is a camless pick-up. The advantage of this is plain to see – a simple assembly uses fewer moving parts than controlled pick-ups with cam tracks and results in extremely quiet running, less wear and ultimately lower service and maintenance costs. EasyFlow – a powerful system that leaves no stem behind.

EasyFlow
The KRONE EasyFlow pick-up offers a 2.05 m (6'9") working width (to DIN 11220), picking up every stem, also in corners and bends.



The scrapers
The highlight of this pick-up is the special design of the galvanized scrapers that ensure a continuous and smooth crop flow when the tines retract. and eliminates the need for a cam track.

The crop press roller unit
The unit eliminates the risk of pushing up crop in uneven windrows. As a result, the machine operates at maximum pick-up and output levels while the crop is flowing smoothly and consistently through the machine.

The feed augers
Massive augers feed the material from the sides to the middle of the machine, ensuring a smooth flow from the wide pick-up into the narrow bale chamber.

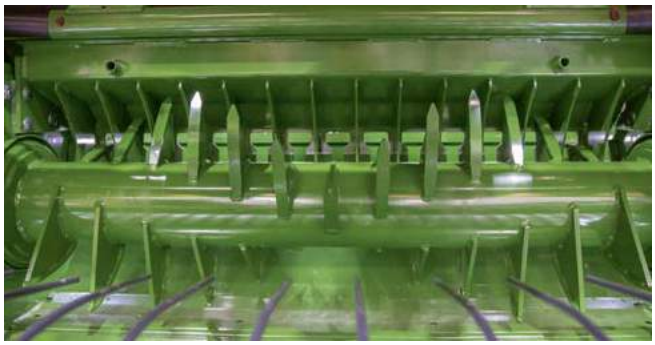
The tine spacing
Boasting five rows of tines spaced 55 mm (2") apart, EasyFlow picks up even the short stems. The deflector plates are galvanized for ultimate durability.

The KRONE **EasyFlow** pick-up

Technical details

Powerful feeding and cutting rotor

The EasyFlow pick-up forms a compact unit that comprises either a feed rotor or a cutting rotor. The clearance between rotor and baling chamber was increased and the rotor was arranged right behind the pick-up itself to increase the intake capacity and ensure a consistent flow even in short stems.



The feed rotor

The Fortima models without cutting system have a powerful feed rotor as standard specification.

Protection against foreign objects

Automatically tensioned pick-up chains are are overload protected by a shear bolt clutch.

The height control system
The EasyFlow height control system consists of pin/hole setting systems on the gauge wheels for quick height adjustment. The pick-up unit runs particularly smoothly on pneumatic tyres.

Working without gauge wheels
The pick-up is easily secured at the desired height. The pictured setting is typical for conditions involving deep ruts and extremely rough straw windrows.

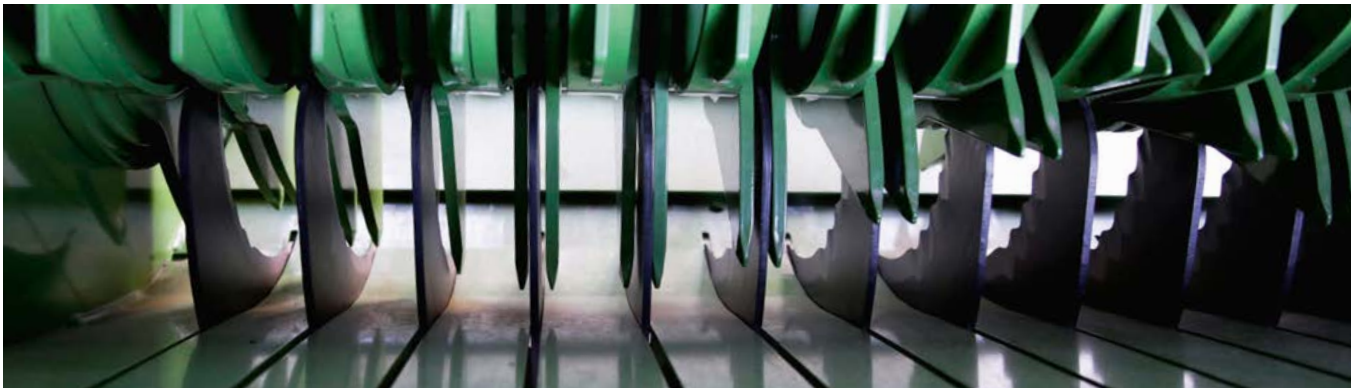
The KRONE **MultiCut** cutting system

- Top cutting quality by controlled cuts
- 64 mm (2.5") chops by the full set of 17 blades
- Quick LOC change by selecting a different number of blades in the cutting system

Up to 17 blades in the KRONE MultiCut rotor cutting system deliver short chops that make for quick payback on your investment thanks to higher bale densities, enhanced silage quality as well as easier and faster bale break-up on the feeding floor. Short straw chops absorb liquids more readily, spread more easily.

The rotor cutter
Measuring 415 mm (16") in diameter, the cut-and-feed rotor boasts a particularly high feed capacity. The double tines are arranged chevron-style and pull the crops consistently through the blades. thereby reducing the risk of peak loads as the stems are cut 'one after the other'.

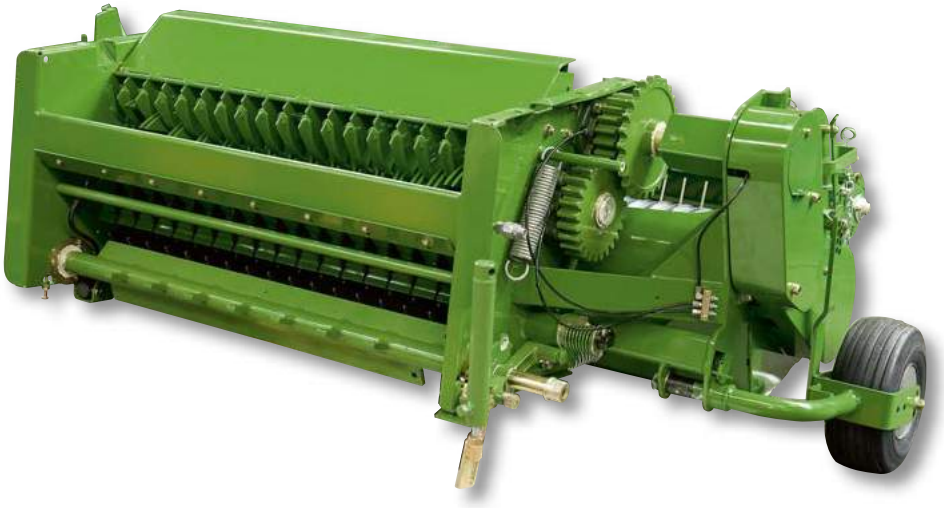
The driveline
All rotors are driven by massive spur gears, which absorb even the highest loads and which provide a positive and dependable drive – even in less than uniform swaths.



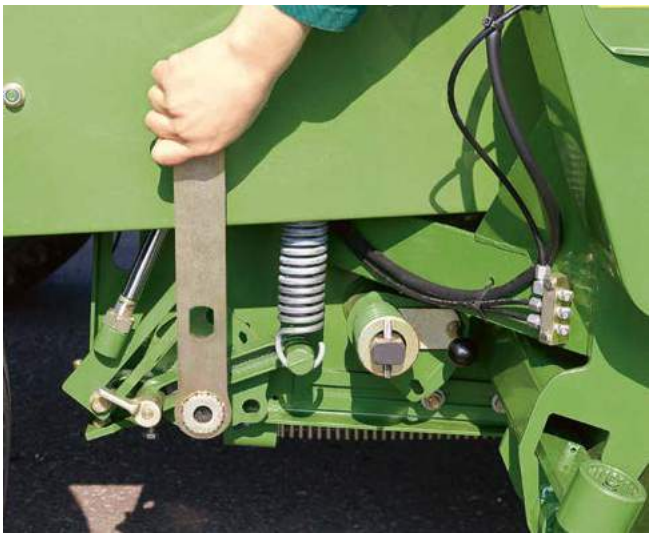
The blade cassette
A maximum of 17 blades are narrowly spaced at 64 mm (2.5") to produce bales that are easy to break up and spread. The blades are arranged in one row for an excellent quality of cut.

The KRONE **MultiCut** cutting system

Technical details



The cut-and-feed rotor
The complete cut-and-feed rotor assembly contains 17 blades and features central blade group control that allows operators to select groups of 17-15-7-0 blades via a selector shaft. A hydraulic blade retracting feature ensures blockages are removed conveniently and the spur gearbox provides powerful drive.



The blade group control system
The KRONE blade group control system allows operators to select only a specific number of blades (17-15-7-0 blades). The operator operates a selector shaft, which swings the desired number of blades into the feed channel. As he alters the spacing between the blades he varies the length of cut by up to 64 (2.5") mm.

Controlled cuts
The double tines pull the crops consistently through the blades. The clearance between the blades and the double tines is very narrow so the crop cannot escape and the cuts are clean and precise.

The central blade locking system
To remove the knives from the bank, release them by rotating the shaft, which rotates through 90°. Then remove them quickly and conveniently from above.

The rotor reverser
The cut-and-feed rotors can be reversed manually or hydraulically as an option.

Protection from foreign objects
The automatic ‘Non-Stop’ auto-reset system and the hydraulic 0-blade selection system are standard specification. The hydraulic 0-blade selection is used to remove potential blockages from the feed channel.

The Fortima blades
The Fortima blades cut across the full length. As the stems are pulled across the blades, the system requires less power. Their wavy edges retain their sharpness for a long period of time.

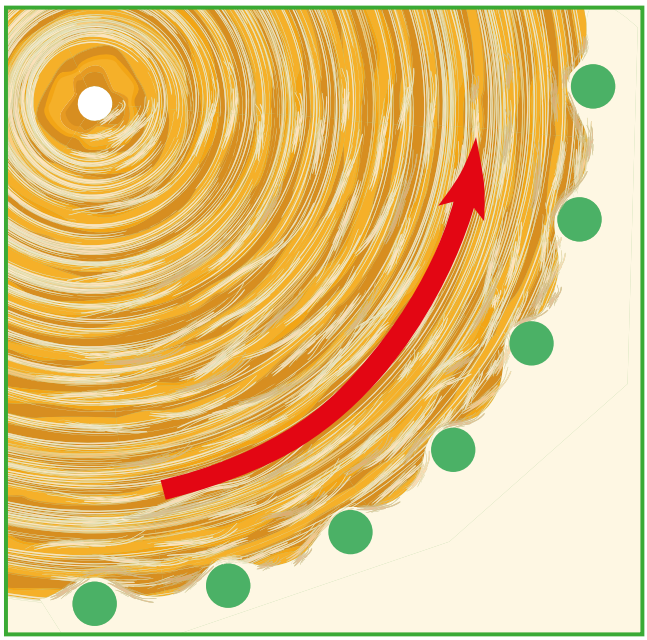
Changing the blades
Unlock the knives and remove them from above for grinding or replacement. No tools required.

The KRONE **chain-and-slat elevator**

- High baling densities
- Effective bale starts
- Less fragmentation
- Low power input

Round balers harvest straw, hay and wilted silage around the world in a wide variety of conditions that require full operational reliability. The chain-and-slat elevators respond to these requirements and operate dependably in all these conditions.

The elevator chains
The heavy-duty chain-and-slat elevator runs on massive guide and drive rollers. The use of more chain links distributes the load more evenly and the use of massive rollers increases the angle at which the chains change direction, reducing the wear on the elevator, increasing its capacity and leading to smooth running. Individual chain links are easy to replace as required.



The meshing effect
The KRONE chain-and-slat elevator is gentle on the crop. By meshing with the material, it ensures effective bale roll and highest densities.

The KRONE **twine tying system**

- Choice of double and quad twine wraps
- Short tying cycles
- High hourly rates

Depending on the level of specified on-board electronics (Medium or Comfort), the Fortima balers can take either the double twine tying system or the faster quad twine system. Either option ensures generous string overlap on the bale and multiple ties along the edge so the bale keeps its shape.

The twine feed system for four strings

A coned pulley controls the number of twine layers applied per cycle. Two guide blocks are used to distribute the four threads uniformly across the full width of the chamber. As the ball starts to roll, the rubber roller and the pressure roller start feeding the twine into the chamber where they are picked up by the rolling bale.

Well-shaped bales

Four threads (1-4) tie the bale a number of times, which allows applying extra wraps along the edges, depending on the settings. Four threads warrant well-shaped bales that will not lose shape as they are handled several times over.

The storage compartment
The large storage compartment holds up to 11 balls of twine. Hoops hold the rolls in place for smooth uncoiling.

Starting the tying cycle
The tying cycle is triggered by an electric motor. The motor tensions the drive belt, which drives the rubber wheel and this in turn pulls the twine into the chamber.

KRONE **net wrapping**

- Short baling cycles for more bales per hour
- Bales break up quickly and easily in animal buildings
- Compact feed system and positive net feed

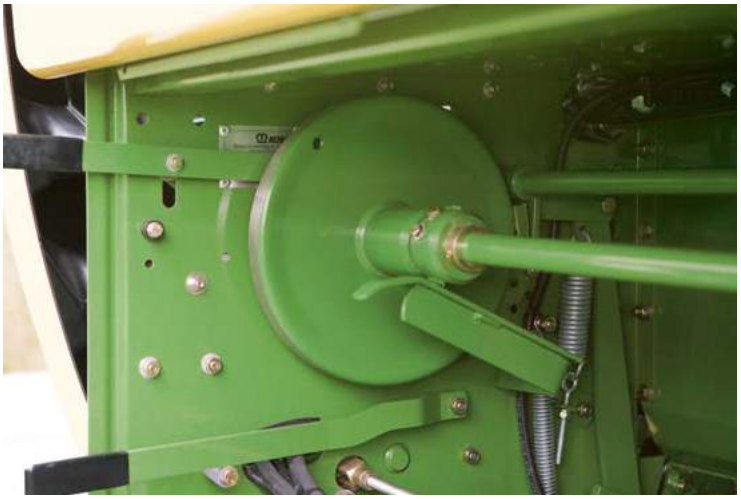
Fortima's net wrapping system is straightforward by design and offers superior functionality. Net wrapping is faster than twine wrapping and increases output rates. The net wrap system accepts rolls with a total net length of up to 3,600 m (11,811 ft).

The storage compartment
The large storage compartment holds three net rolls and protects them from rain. The rolls may provide up to 3,600 m (11,811 ft) of netting and are secured by a retainer.

Fitting the roll
Replacing the net roll is convenient and safe, because the operator can stand upright when reloading. To replace an empty net roll, simply swing out the dispenser arm and slide the fresh roll onto it. Then the net is fed into the net wrap system.

Setting the number of net layers
A sensor on a toothed wheel measures the number of wraps applied and transfers the information to the cab computer. Once the programmed number of wraps is completed, the net is cut automatically.

The net start
At the end of the baling cycle, the electric motor triggers net wrapping – either automatically or manually.



The net/twine brake
This brake ensures the net or twine is applied tightly so the bale keeps in shape when it's being handled.

KRONE – **easy servicing**

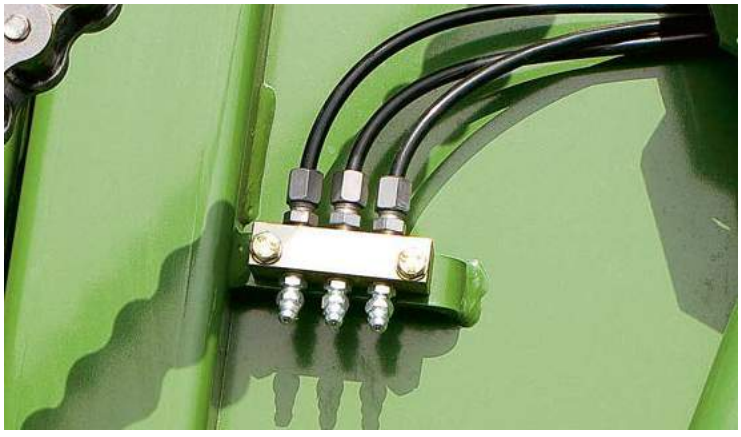
- Easy access for easy maintenance
- Automatic lubrication is an option
  for the fixed chamber Fortima drive chains
- Automatic chain tensioning

Not only is Fortima designed for highest densities and outputs but it also stands out for an uncluttered layout and easy access to all service points. A grease bank and the automatic chain lubricator minimize service and maintenance.

The automatic chain lubricator
The automatic chaing lubrication system benefits from a large oil reservoir and eccentric pump for minimum maintenance and added viability. An adjustable eccentric pump supplies the oil to the drive chains.

The oil filter
To avoid downtime due to contaminated oil, the variable chamber Fortima features an oil strainer with a visual indicator to ensure optimum functionality and peace of mind.

The chain tensioner
A spring-loaded and automatic chain tensioner minimizes the time spent on service and maintenance and increases chain life.



The grease banks
All ‘hidden’ lubrication points are grouped in easy-access lubrication banks, making service and maintenance less time-consuming and more convenient.

The KRONE **terminals** and **on-board electronic systems**

- High operator comfort from a graphical user interface
- Clear design
- Easy use

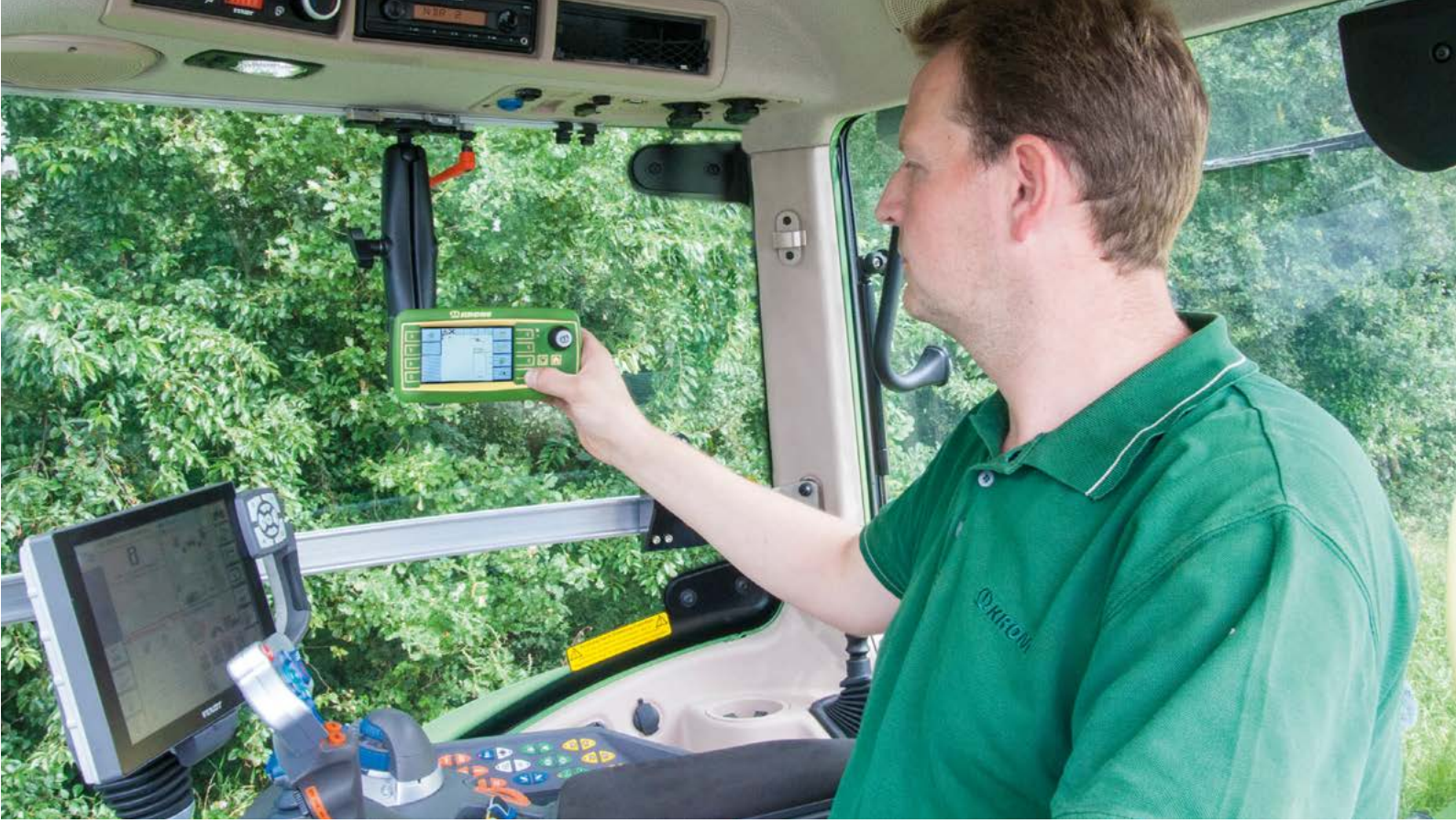
Krone offers a choice of electronic control units that help reduce operator fatigue. Each control box features a clear and uncluttered screen that displays all relevant machine data and a user-friendly interface.

The on-board electronic options
All Fortima balers have the Medium electronics as standard specification. In this specification they have two pointers at the front end which indicate the current pressure on either side of the bale chamber.
The optional Comfort electronics process the sensor signals and control the control boxes automatically.

The control box
The Fortima F has a standard control box which indicates the target pressure, switches from net to twine wrap and activates the blade group control and controls the pick-up.

The Delta operator terminal
Delta has a 5.5" touch screen, a membrane keypad with 12 function keys and a dial control, allowing operators to retrieve information on valve / sensor and diagnosing functions as well as yield data.

The Beta II operator terminal
The Beta II terminal has a 4.3" colour display screen and a touch pad with 8 keys for easy read and use. The unit displays baling pressures, bale diameters, start of tying/wrapping and bale counts and allows operators to retrieve all valve and sensor functions.



The camera system

A camera enhances operator comfort and road safety by monitoring the machine functions and ensuring good visibility around the machine.

The camera feeds are viewed either on a separate screen or on a CCI terminal.

The DS 500 operator terminal

The DS 500 operator terminal has a 5.7" colour touchscreen, 12 function keys and a dial control for very easy use. The unit displays baling pressures, bale diameters, start of tying/wrapping and bale counts and allows operators to retrieve all valve and sensor functions.

CCI 1200 operator terminal

The CCI 1200 operating terminal is equipped with a large 12" colour display with touch function which displays the machine controls and camera footage side by side on the same screen. CCI 1200 is ISOBUS compatible and therefore a universal terminal that is ready for use on other machines as well.

Technical data

- 4 fixed chamber models
- 4 variable chamber models

		Fixed chamber Fortima models			
		F 1250	F 1250 MC	F 1600	F 1600 MC
Bale width	m	1.20 (3'11')	1.20 (3'11')	1.20 (3'11')	1.20 (3'11')
Bale diameter	m	1.25 (4'1")	1.25 (4'1")	1.55 (5'1")	1.55 (5'1")
Machine length	m	4.20 (13'9")	4.20 (13'9")	4.36 (14'4")	4.36 (14'4")
Machine height	m	2.49 (8'2")	2.49 (8'2")	2.62 (8'7")	2.62 (8'7")
Machine width*	m	2.57 (8'5")	2.57 (8'5")	2.57 (8'5")	2.57 (8'5")
Pick-up unit without cam track Work width (DIN 11220)	m	2.05 (6'9")	2.05 (6'9")	2.05 (6'9")	2.05 (6'9")
Number of tine rows		5	5	5	5
Feed rotor		Standard	–	Standard	–
Cutting rotor		–	Standard	–	Standard
Maximum number of blades		–	17	–	17
Minimum blade spacing	mm	–	64	–	64
Tyre choices		11.5/80-15.3 10 PR 15.0/55-17 10 PR 19.0/45-17 10 PR 500/50-17 10 PR**	11.5/80-15.3 10 PR 15.0/55-17 10 PR 19.0/45-17 10 PR 500/50-17 10 PR**	11.5/80-15.3 10 PR 15.0/55-17 10 PR 19.0/45-17 10 PR 500/50-17 10 PR**	11.5/80-15.3 10 PR 15.0/55-17 10 PR 19.0/45-17 10 PR 500/50-17 10 PR**
Tractor power	min. kW/hp	36 / 50	36 / 50	36 / 50	36 / 50
Power input		12 V	12 V	12 V	12 V
Driveshaft speed	rpm	540	540	540	540
Hydraulic couplers		2 sa	2 sa	2 sa	2 sa

All specifications, weights and dimensions do not necessarily comply with standard specifications and are therefore not binding.All product specifications are subject to change.

The KRONE **net and twine wraps**

KRONE excellent Edge X-tra

The KRONE excellent Edge X-tra combines the properties of the time-proven nets Edge and RoundEdge in one universal premium-quality 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 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.

		Variable chamber Fortima models			
		V 1500	V 1500 MC	V 1800	V 1800 MC
Bale width	m	1.20 (3'11')	1.20 (3'11')	1.20 (3'11')	1.20 (3'11')
Bale diameter	m	1.00 - 1.50 (3'3" - 4'11")	1.00 - 1.50 (3'3" - 4'11")	1.00 - 1.80 (3'3" - 5'11")	1.00 - 1.80 (3'3" - 5'11")
Machine length	m	4.52 (14'10")	4.52 (14'10")	4.86 (15'11")	4.86 (15'11")
Machine height	m	2.70 (8'10.5")	2.70 (8'10.5")	2.85 (9'4")	2.85 (9'4")
Machine width*	m	2.57 (8'5")	2.57 (8'5")	2.57 (8'5")	2.57 (8'5")
Pick-up unit without cam track Work width (DIN 11220)	m	2.05 (6'9")	2.05 (6'9")	2.05 (6'9")	2.05 (6'9")
Number of tine rows		5	5	5	5
Feed rotor		Standard	–	Standard	–
Cutting rotor		–	Standard	–	Standard
Maximum number of blades		–	17	–	17
Minimum blade spacing	mm	–	64	–	64
Tyre choices		11.5/80-15.3 10 PR 15.0/55-17 10 PR 19.0/45-17 10 PR 500/50-17 10 PR**	– 15.0/55-17 10 PR 19.0/45-17 10 PR 500/50-17 10 PR**	11.5/80-15.3 10 PR 15.0/55-17 10 PR 19.0/45-17 10 PR 500/50-17 10 PR**	– 15.0/55-17 10 PR 19.0/45-17 10 PR 500/50-17 10 PR**
Tractor power	min. kW/hp	36 / 50	36 / 50	40 / 55	40 / 55
Power input		12 V	12 V	12 V	12 V
Driveshaft speed	rpm	540	540	540	540
Hydraulic couplers		2 sa, free return line	2 sa, free return line	2 sa, free return line	2 sa, free return line

*Dimensions may vary depending on tyre and axle specification
** on single-axle models only

KRONE excellent SmartEdge
A 'smart' but less high-end version of excellent Edge X-tra net wrap is also available – the KRONE excellent SmartEdge is an excellent option for customers who look for a less high-end and yet reliable product. Priced more economically and yet meeting higher than basic standards, this net wrap offers good value for money and delivers top results in any conditions.

The KRONE excellent Round Baler Twine
This twine is the high-strength and high-quality option for round balers with twine tying systems.

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

KRONE
THE POWER OF GREEN

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