



THE POWER OF GREEN

# Premos

Mobile pellet harvester

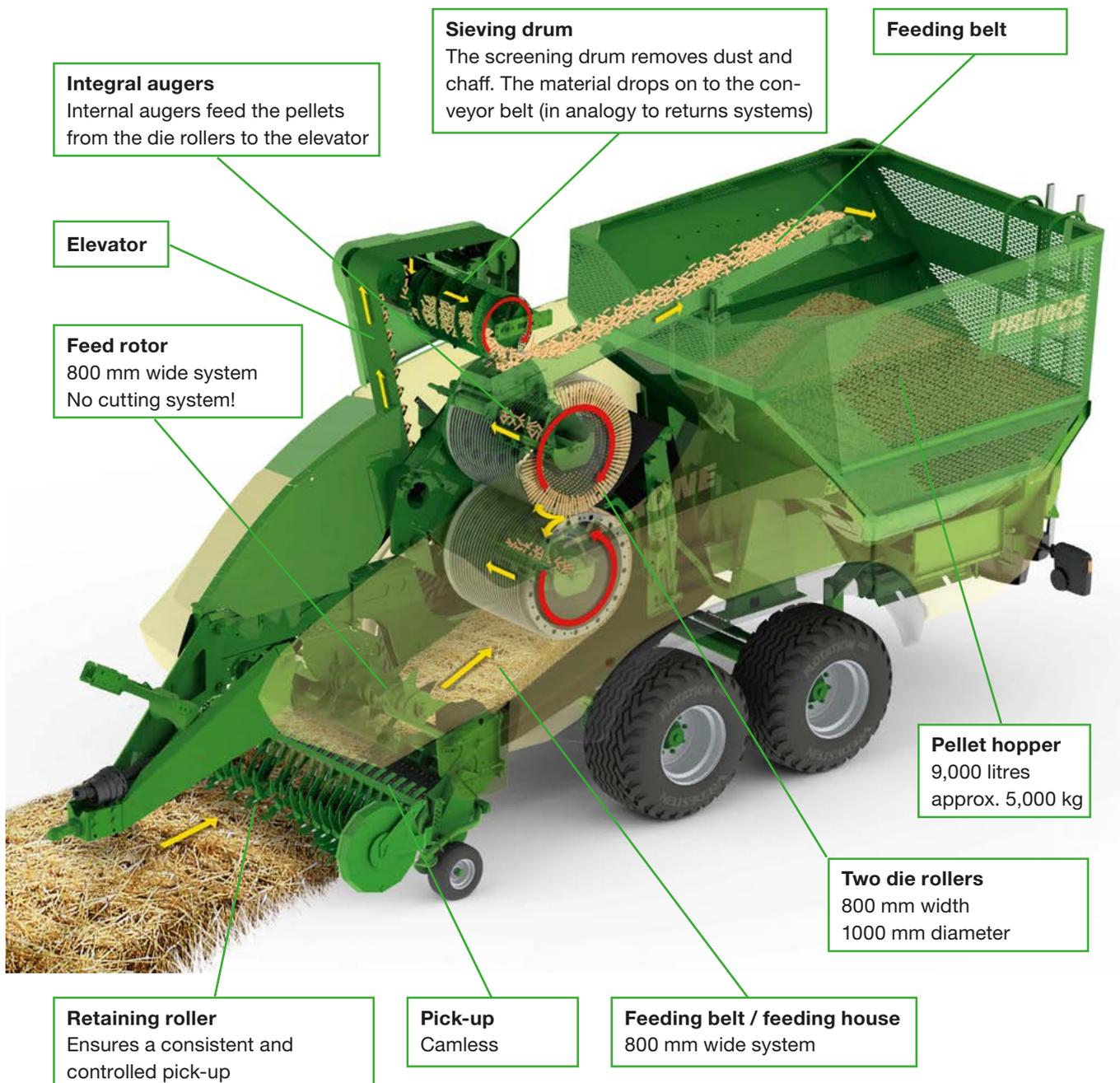


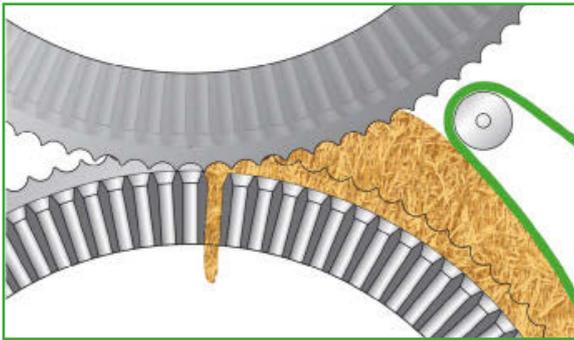


# Premos 5000

The mobile pellet harvester and stationary mill

In presenting the Premos 5000 (Kalverkamp system), KRONE is once again making a powerful statement of its innovative performance: The Premos is at the same time a mobile pellet harvester and a stationary pellet mill that harnesses the huge potential of straw, which is abundantly available in the fields around the world, and presses it into top-quality, high-fibre pellets. These make ideal bedding, animal feed and fuel.





### Milling and pressing

The material is milled by two counter-rotating and interlocking die rollers with alternating rows of teeth and holes. The teeth of one roller mesh with the holes of the other, pressing the material into the holes and reaching pressures of up to 2000 bar and temperatures of 70 °C to 100 °C as they do so.



### Setting the pellet length

As the material flows between the two die rollers it is pressed into the 16 mm holes and from here into the inside of the rollers. The pellet diameter is fixed as it is determined by the diameter of the holes, but pellet length varies between 15 mm and 40 mm by adjusting the gap between the spacers and the die roller.



### Sieving debris

Augers inside the die rollers feed the pellets to an elevator which in turn feeds them through a sieving drum. Here, dust and debris are separated from the pellets and returned to the die rollers. The results are pellets of an optimum quality that are suitable for use as bedding, feed or fuel.



### Hopper and unloading elevator

The pellets are conveyed to the 9 m<sup>3</sup> hopper. Here they are cooled by a blower after they were heated under the high pelleting pressure. As soon as the hopper, which also features a weighing system, is filled to capacity the pellets can be unloaded into a chaser bin.



# Premos 5000

## Pelleting on the move

- Producing marketable high-fibre pellets in the field
- Up to 5,000 kg throughputs per hour
- Water and oil dispenser for optimum results
- On-board cooling keeps pellet quality high

Premos 5000 is the first pellet harvester that pellets long-stemmed crops like straw, hay and lucerne on the move and while harvesting the straw. The finished product is then overloaded into a chaser bin.



### Clean gathering of the material

The 2.35 m wide and camless pick-up gathers the crop and a retaining roller ahead of the pick-up ensures a very uniform flow also at low forward speeds.



### Feeding rotor and feeding belt

An 800 mm wide rotor feeds the material to the feeding belt. Foreign objects drop into a stone trap that is arranged behind the rotor while the material is conveyed to the die rollers.



### The water/oil dispenser

A dispenser meters water or oil to a bank of jets that spray the liquid on the die rollers. This feature optimizes the moisture levels and adhesion properties of the material, which is the basis for a consistently high quality.



### The cooling system

The material is heated to 70-100 °C under the high pressure during pelleting. To avoid the pellet quality deteriorates during storage, the pellets are cooled by a fan that blows air into the hopper through a double floor.





# Premos 5000

## Pelleting on the farm

- The first mobile pellet harvester that also operates as a stationary pellet mill
- Bale shredder, integral feed table, automatic twine removal
- Fold-up feed table for convenient changeover into transport position

Used as a stationary mill, Premos can produce pellets all year round. The bale is removed from storage and fed into the machine via a system of shredding rollers.

To convert Premos into a stationary mill, remove the pick-up and replace this by the bale shredder which makes an integral part of the machine.



### The feed table

The stationary Premos has a 7.5 m long feed table with a hydraulic folding mechanism. After the bale is placed on the table, it is fed by two chains with lugs to the shredding rotors.



### The twine remover

**NEW**

The twine is removed automatically at the end of the table, while a triangular knife cuts the threads at the bottom. Then a rake on the top pulls the cut threads to a rotating spool which catches and coils them before it places them in a container.





### The bale shredder

This unit consists of four hydraulic rotors that have knives and guide plates. As the bale passes over them, the straw is cut by the knives and pulled out by the serrated plates. Additional deflector plates are arranged behind the rotors to ensure an optimum distribution of the material across the working width.



### Ready for road transport

To changeover into transport position, the feed table folds hydraulically up on the side of the machine for easy road transport and a transport width of less than 3 m – for fast and easy moves between sites.



# High-fibre pellets and their use in agriculture

## Versatile applications

- Straw pellets of an extremely high bulk density: 600-700 kg/m<sup>3</sup>
- Excellent absorption qualities for ideal bedding
- Adds structure to the ration
- Excellent toys for pigs
- Enormous potential as a renewable energy source.

KRONE Premos 5000 produces pellets that are clearly different from DIN pellets. With a 16 mm diameter, high-fibre pellets that are made from unchopped material are much bigger than pellets that meet DIN standards. Rich in fibre, pellets add structure to the ration and offer good absorption qualities as bedding.



### Feeding pellets to animals

Pellets from hay, lucerne and straw make excellent base rations. Research has found that high-fibre pellets show distinctly fewer traces of pathogens and mould than straw. This is proof of their high quality for use as animal feed.



### Animal welfare

Handed out in small quantities, the nearly dust-free and sterile high-fibre pellets make excellent toys for pigs. Scattering pellets in the pen enriches the animals' environment and increases animal welfare, as it encourages pigs to explore and interact with their surroundings.



### Comfortable bedding for cattle

1 kg of high-fibre pellets absorb up to 4 litres of water. This high liquid absorbing capacity makes straw pellets the ideal bedding for housed cows. The cleaner environment leads to cleaner cows and better udder and animal health. In addition, less bedding is required when pellets are used instead of straw chops.



#### **Ideal for horses**

Offering high liquid-absorbing capacities, straw pellets keep horse boxes dry. The disinfectant qualities can help control pathogens which account for typical fungal infections such as thrush or grapes. One further boon is that, because they contain very little dust, straw pellets reduce the risk of horses contracting breathing difficulties



#### **Better animal hygiene**

The high absorption capacities of straw pellets also pay off in poultry farming. Pellet bedding reduces floor litter and keeps hen feet, nests and eggs cleaner. In addition, it reduces ammonium pollution in hen houses,



#### **A sustainable fuel**

2.5 kg straw pellets substitute for 1 l fuel oil. On a global scale, about 800 million tonnes of straw are available for use as fuel. The annual amount of straw harvested in Germany is 30 million tonnes, of which 8-13 million tonnes can be used as a renewable energy resource. This makes straw a huge energy potential that has not really been harnessed in the past but can make a significant contribution to climate protection and help reduce CO<sub>2</sub> levels.



# Operation

## User-friendly operator terminals

- Easy use and easy operation
- DS 500 – Standard 5.7" operator terminal with colour screen
- CCI 800 – Comfort-level 8" operator terminal with touch screen
- CCI 1200 – Comfort-level 12" operator terminal with touch screen

Premos is conveniently operated from a number of easy-use operator terminals. From here, operators check machine functions and enter settings.

### CCI 800/1200 terminal

Premos 5000 is operated from the CCI 800 or the 1200 terminal with 8" or 12" touch screen. The home screen shows the current level of machine utilization, the pellet density, temperature and moisture level. Tap the buttons to retrieve the menu items and access machine data and settings.



### DS 500 terminal

DS 500 with 5.7" colour display screen is the standard terminal for Premos 5000. It offers twelve function keys and a touch screen for easy and straightforward machine control.



# Technical data

## Pellet harvester

## Premos 5000

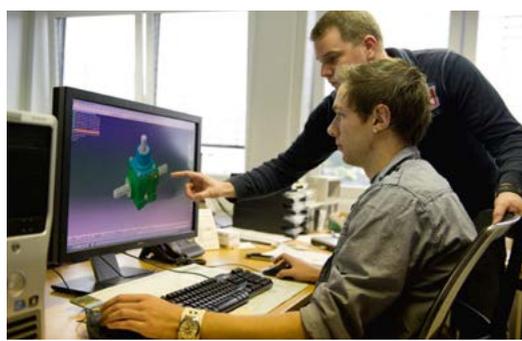
Types of crops		Hay, lucerne, straw with less than 16% moisture
Length	Approx. m	8.90 (29'2")
Width	Approx. m	2.99 (9'10")
Height	Approx. m	3.80 (12'6")
Pick-up work width	Approx. m	2.35 (7'9")
Bale shredder		
- Bale height	approx. m	0.60 to 1.00 (23.6" to 39.3")
- Bale width	approx. m	max 1.20 (3'11")
- Table length	approx. m	7.50 (24'7")
- Shredding roller diameter	approx. cm	40 (15.7")
Weight	Approx. t (lbs)	17 (37,478)
Pellet diameter	approx. mm	16 (0.63")
Throughput	t/h (lbs/h)	up to 5 (11,023)
Hopper capacity	t	5 (11,023)
Water tank	Litres	500
Auxiliary tank	Litres	100
The tandem axle		620/50 R 22.5
Tractor power	min. kW/hp	257/350

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



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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.

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