

# METITRON 560

Pelletizing of stalk material  
Self-propelling harvesters





# PASSION FLEXIBILITY

The Metitron is a compact vehicle with all the merits of an established brand of self-driving forage harvester.

The operator can use the machine in two ways: firstly, field use and secondly, yard use. A continuously variable hydrostatic engine on all four wheels considerably simplifies driving in the field, even on rough terrain. This design concept makes it possible to use the entire range of front attachments such as a maize head for miscanthus, as well as grain and alfalfa via direct cutters. The basic machine manufacturer's pickup can be used for other materials.

As the trials have been completed under real conditions with the raw material miscanthus, straw, hay and spelt husks, the Metitron is now going into series production.



# PASSION HAY AND STRAW



Hay pelletizing directly from the field.



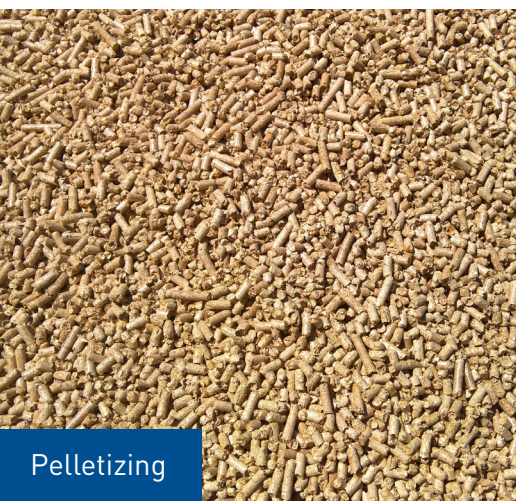
Straw pelletizing directly from the square bale. (Straw)



# PASSION MISCANTHUS



Miscanthus harvest



Pelletizing



Pelletizing



# UNIQUE FEATURES

- ▶ compact structure with the self-propelling agricultural machine
- ▶ automatically controlled material feed through the power regulator of the pelleting press engine
- ▶ direct press engine from a diesel motor via the power belt to the pelleting press
- ▶ Pellet transport after the pelleting press via a pellet bucket conveyor, the pellets being cooled and transported gently
- ▶ no pre-warming from the emissions in the pressed product
- ▶ patented material crushing integrated in the direct flow of material
- ▶ no conversions or attaching to a tractor is necessary



# PERFORMANCE DATA

Pellet capacity:	up to 6 t/h
Axle load:	front 11 t, rear 9.5 t
Turning radius:	12.5 m
Working speed:	depending on material and soil conditions approx. 1 - 10 km/h
Location:	field work / yard work
Pellet size:	standard size 8 mm possible by changing the die 6 - 12 mm (time required approx. 2 hours)
Hopper system:	raw material hopper with a capacity of approx. 2 m <sup>3</sup> pellet bunker with a capacity of approx. 3 m <sup>3</sup> and discharge belt
Humidification gauge:	auto. / continuous
Humidification system:	automatic
Pellet press:	ring die press with double roller
Basic machine:	Claas Jaguar 960 Tier 4
Engine:	MB OM 473 LA 15.6 l in-line 6-cylinder with 460 KW/626 PS
Engine (prototype):	MB OM 502 LA 15.93 l V8 with 458 KW
Press engine:	power belt connection directly from the motor via coupling
Auxiliary drives:	hydraulic
Fuel tank:	1300 l
Additional tank:	300 l of water for humidification system
Front heads:	Pickup from Claas for hay, straw, alfalfa, sainfoin, etc. Corn head from Claas for miscanthus, sida, etc. Direct Disc from Claas for whole plant pelleting
Energy consumption:	from 15 l/t

# THE PELLET

**Pelletizing the material can offer various advantages:**

## **Increasing the bulk density**

By pressing the pellets, the bulk density can be significantly increased compared to the starting material. At around 650 - 700 kg/m<sup>3</sup>, hay and straw pellets, for example, have a much higher bulk density than high-pressure bales of around 100 - 160 kg/m<sup>3</sup>. As a result, storage and transport expenses are significantly lower and the transport worthiness is enhanced.

## **Improving the handling of the material**

By converting the small material (e.g. dust/powder, sawdust) into pellets, dust formation during storage, transport or use is avoided. This prevents contamination with toxic materials and prevents dust explosions with flammable materials.

## **Standardization of material size**

By converting the starting material into pellets of a certain size, a uniformity of the size-related properties is achieved. Conveyor systems (screw conveyors, etc.), for example, can then be operated reliably. This also improves dosability.

## **Improving transportability**

Material that has to be transported in large quantities, such as firewood or animal feed, can be transported quickly and efficiently in pellet form by blowing it via an air stream, e.g. from a truck into a storage silo.

## **Avoiding separation**

If the starting material is a heterogeneous mixture of different substances (e.g. animal feed), pelleting can prevent separation.





# PELLETS AS BEDDING

From many years of experience, we know how important the right bedding is for optimal stable management, whether in the horse stables, in the pigpen, in the cowshed or in the poultry house. Therefore, there are no compromises on quality. So, what could be more obvious than processing domestic straw or even your own straw into pellets.

Further advantages are 75% less work in the barn compared to conventional straw, a reduction in disposal as 15 times more absorption power is achieved compared to long-stalk straw, it is 100% degradable, and has a high fertilizer value.

The manufacturing process in the Metitron retains the pellets' **sterility** as it is approx. 80° C during the pressing process, making it **ideal for veterinary clinics**. Straw pellets can also be used in pig farming and can be mixed with the liquid manure for disposal.





## PELLETS AS FEED

For feeding purposes, whole plants, such as grains, can also be pelletized using the Metitron mower head. Pellets are used as an all-in-one feed or as a supplement. Advantages of pellet feeding are a lower dust load than with grain, no need to separate the individual feed components and good use opportunities for transponder feeding in groups.



# HEATING WITH BIOMASS

Plants are renewable raw materials and can significantly contribute long term to the security of supply in one 's own country. Using one 's own arable land, the regional supply reliability, and the comparably minimal production costs make biomass an extremely economical and pioneering alternative. Straw and miscanthus pellets can be burned in pellet heating systems from 60 kW, used in wood chip heating systems and even mixed in.

**Benefits of Biomass Heating:**

- ▶ environmentally friendly, CO<sub>2</sub>-neutral combustion
- ▶ reduces heating costs
- ▶ low production and transport costs
- ▶ secures jobs and strengthens the region
- ▶ virtually unlimited renewability
- ▶ significant contribution to the energy revolution
- ▶ outstanding alternative to fossil fuels







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