




HAMMEL Recyclingtechnik GmbH
Leimbacher Straße 103
D-36433 Bad Salzungen

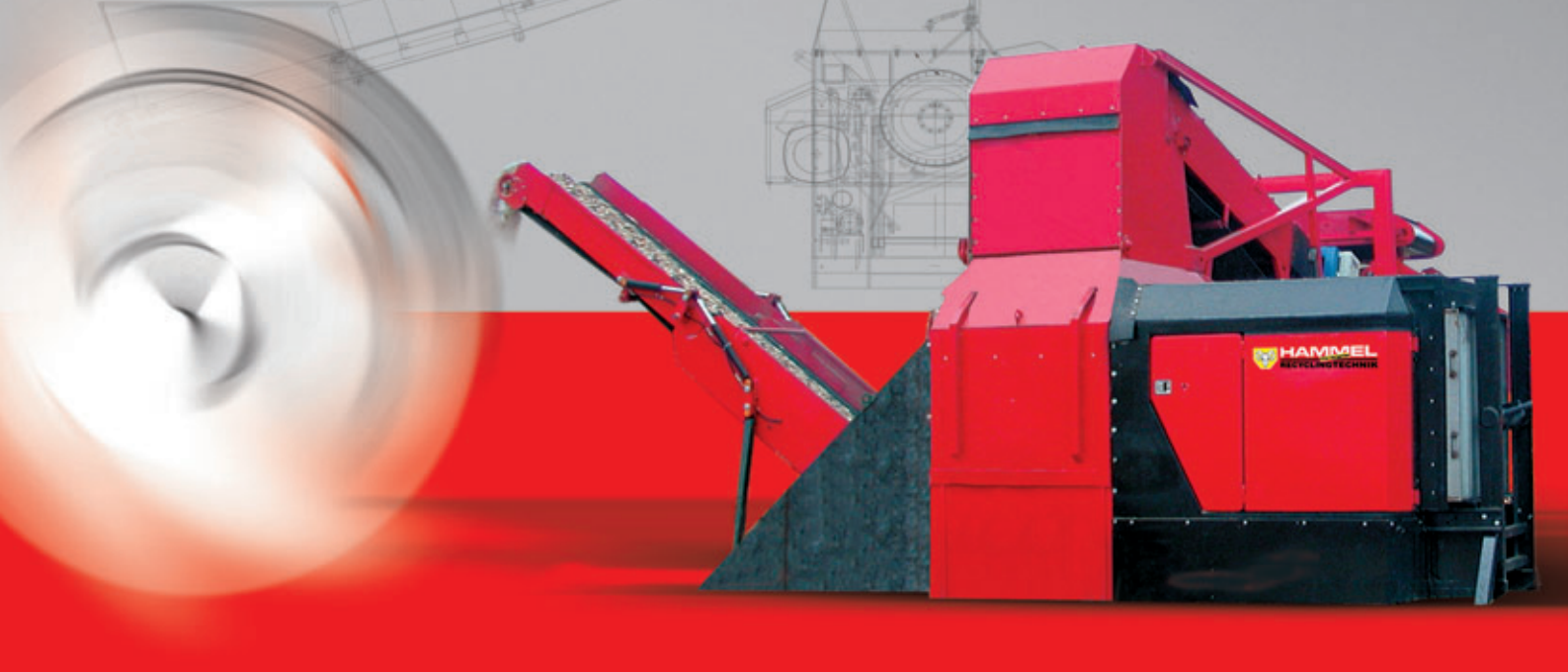
Telefon: +49 (0) 36 95/69 91-0
Telefax: +49 (0) 36 95/69 91-23
Internet: www.hammel.de
e-mail: info@hammel.de

HAMMEL
RECYCLINGTECHNIK

Secondary Shredder

Type NZS 700 / NZS 1000

diesel / electric







HAMMEL - *Secondary Shredder*

Type NZS 700 / NZS 1000 diesel electric

with optimal ferrous / non-ferrous metal separation

The HAMMEL - Secondary Shredders ***NZS 700 D/E*** *&* ***NZS 1000 D/E*** *allow energy-saving and very efficient shredding of different pre-shredded wooden materials like waste wood, pallets, cable drums and railroad ties down to a grain size of 40 - 60 mm. Metal particles are almost completely removed through the integrated ferrous and non-ferrous separating unit. The produced clean wood chips will then, depending on the composition, be thermally utilized or even used as a secondary raw material in the woodworking industry. Another example for the costumer and market focused developments of HAMMEL Recyclingtechnik.*

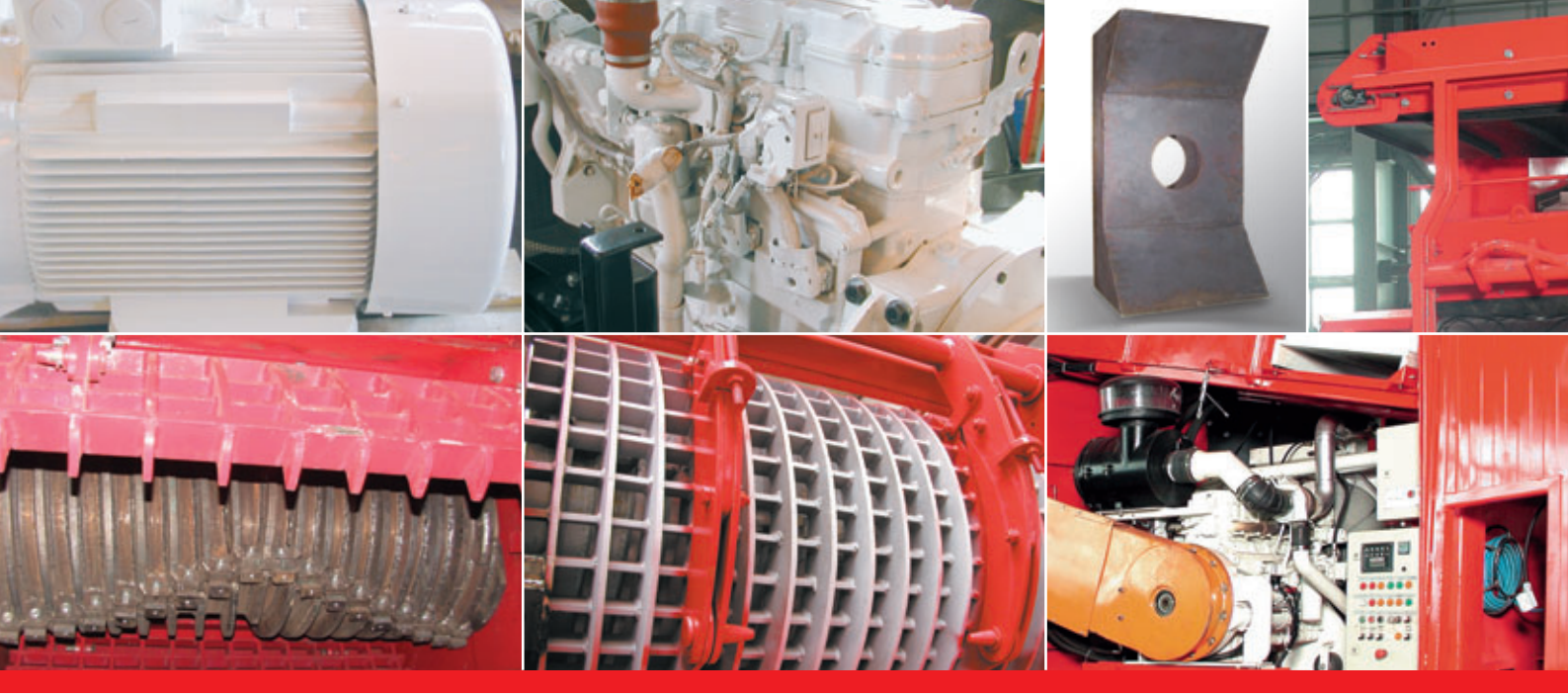
BENEFITS

- ***efficient ferrous and non-ferrous metal separation***
- ***fixed knives - high performance***
- ***uniform end-product***
- ***reduced sawdust***
- ***almost 100% constant end-product size***
- ***low energy consumption***
- ***quick and easy maintenance on the tools***
- ***knives and screen can be used from either side***
- ***system (mobile version) can be installed in a short time***

HAMMEL Secondary Shredder *technical data*

Type	NZS 700 diesel	NZS 700 electric
Drive	345 hp	160 kW
Rotor diameter	700 mm	700 mm
Rotor width	1,500 mm	1,500 mm
Rotor rpm	1,300 rpm	1,300 rpm
Feeding conveyor width	1,200 mm	1,200 mm
Discharge conveyor width	1,000 mm	1,000 mm
Throughput	approx. 30 t/h	approx. 30 t/h
Energy consumption		approx. 5 kW/t
Weight	14 tons	13 tons

Type	NZS 1000 diesel	NZS 1000 electric
Drive	395 hp	250 kW
Rotor diameter	1,000 mm	1,000 mm
Rotor width	1,500 mm	1,500 mm
Rotor rpm	1,100 rpm	1,100 rpm
Feeding conveyor width	1,200 mm	1,200 mm
Discharge conveyor width	1,000 mm	1,000 mm
Throughput	approx. 60 t/h	approx. 60 t/h
Energy consumption		approx. 4 kW/t
Weight	19 tons	19 tons



Custumized
to your individual needs

A strong team

Together with the HAMMEL Primary Shredder the Secondary unit becomes an efficient complete system for the processing of large volume and bulky wood to a grain size that allows high quality subsequent processing. One of our main goals is to make the plant as efficient and reliable as possible. The HAMMEL-Secondary Shredder can either be equipped with a powerful diesel engine or alternatively with an electric drive. Especially as a stationary model, the electric engine is the more economic solution because of its higher efficiency. The energy consumption of the primary and secondary shredder is substantially lower then the consumption of ordinary systems. On top of that, the wear costs for both units are also lower in comparison with other systems. The throughput rate of the complete plant is up to 60 t/h depending on the input and the end product size on 90 % machine utilisation.

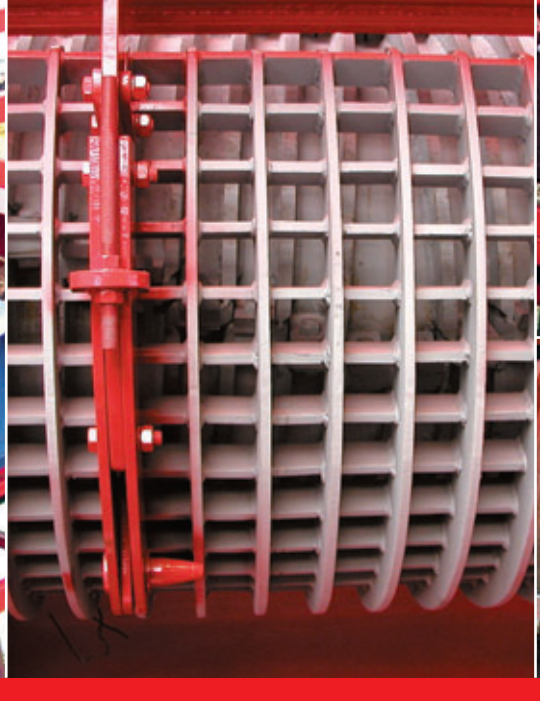
The spectrum of the HAMMEL Secondary Shredder as a part of a complete solution varies. A typical field of application is the shredding of wood waste and the separation of disturbing materials like ferrous and non-ferrous metals from the wood parts. That way, a very homogenous and clean material is produced whose quality criteria have a considerable influence on subsequent processing. The material from the HAMMEL Secondary Shredder ensures a high-quality usage as secondary raw material in the woodworking industry, for example in the production of chip boards, or it can be used as quality fuel for the power production.

Decreasing fossil fuel reserves and increasing air pollution from carbon dioxide will lead to a higher utilization of carbon-dioxide-neutral biomass.

Functional description

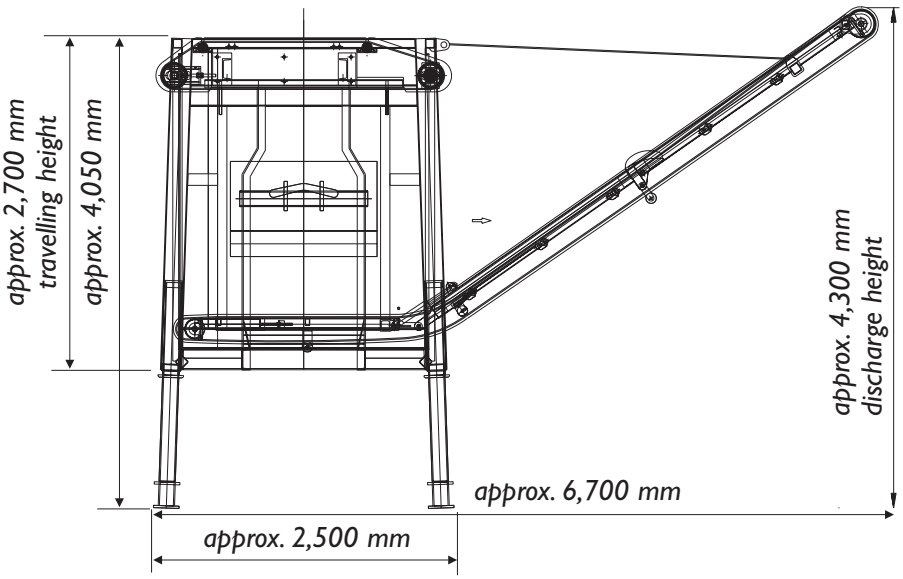
The pre-shredded material is transported via conveyor belt to the secondary shredder where it passes through an over-belt magnet, which efficiently selects the metal parts from the wooden materials (approx. 95 %). The material is then conveyed to the shredding rotor. A non-ferrous metal detector attached to the conveyor recognizes those metals and gives a signal to the discharge flap at the end of the belt where wooden pieces that contain non-ferrous metals are ejected before they can reach the rotor. The clean pre-shredded material drops down onto the massive rotor that shreds the material between the fixed knives and the perforated screen located below the rotor. The chips of uniform size fall through the screen onto the discharge belt. A magnetic pulley at the end of the discharge belt will then remove any remaining fine metal content such as nails, screws or clips.

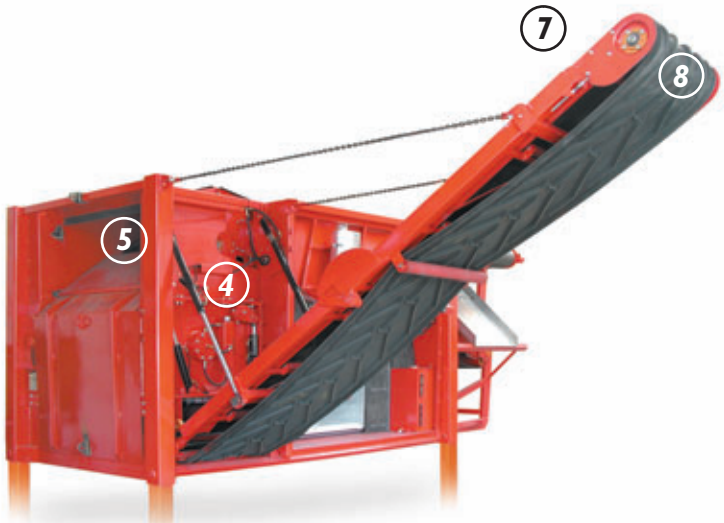
The fixed knives on the rotor guarantee a very efficient shredding process generating only a minimun over size portion of approx. 2 % and comparably low energy costs.

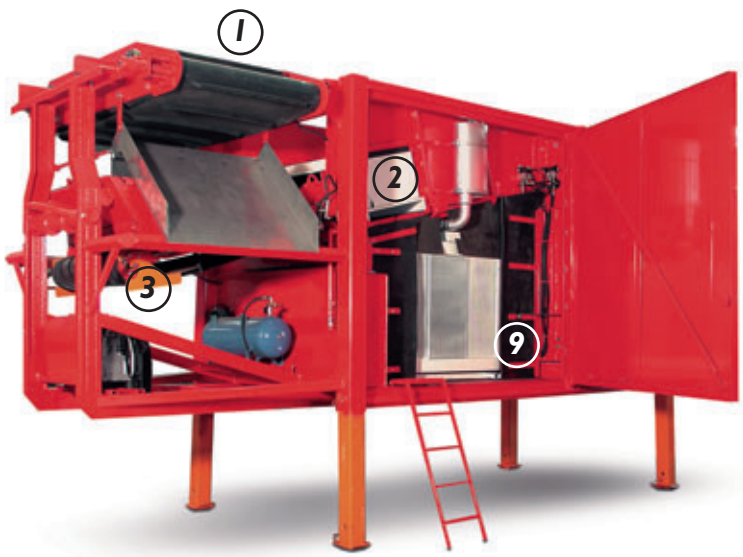


Layout

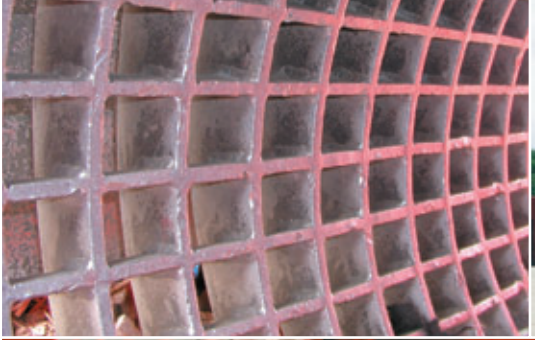
Type NZS 700 D / E





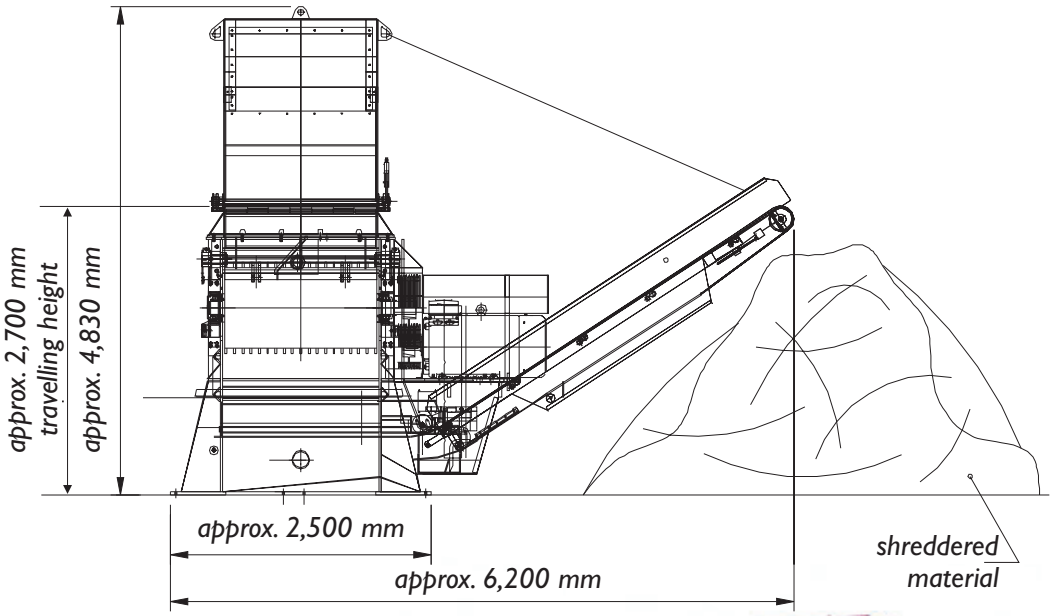


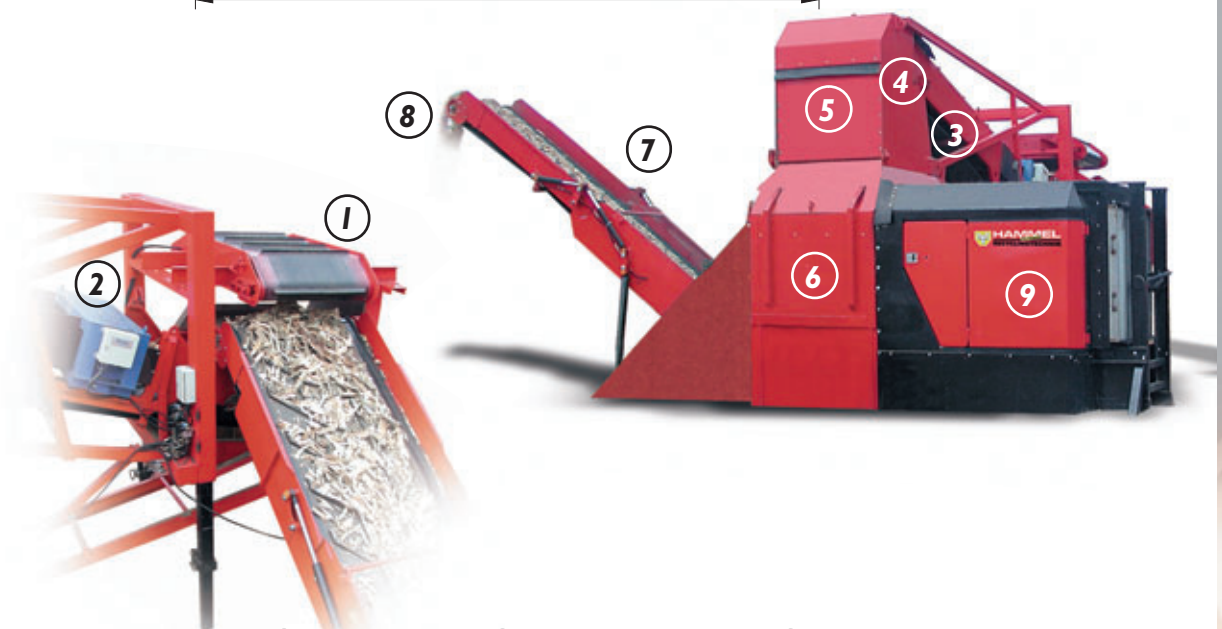
① *ferrous metal separation* ② *non-ferrous metal detector* ③ *feeding belt* ④ *feeding system* ⑤ *discharge flap*



Layout

Type NZS 1000 D / E





non-ferrous particles ⑥ screens, rotor ⑦ discharge conveyor ⑧ magnet pulley ⑨ engine D/E