

# Straw

Fully automatic  
heating plants 200-1500 kW

B

# Linka straw heating plants

Cyclone and boiler system



Hearth



Automatic ash removal



The fully automatic system is PLC controlled and monitors its own performance, ensuring optimal operation.

The system can also be controlled and monitored remotely via the Internet.



# Calorific value

## Calorific value

The average consumption of straw with a calorific value of 15.0 MJ/kg (3585 kcal/kg) and a 15% water content is 0.28 kg for the production of 1 kWh of heat energy. 1 litre of fuel oil = 2.8 kg of straw. Ash: 5%.

Shredder drums

Round and big bale shredder – type Mega



Adjustment of straw quantities

Cyclone

## Fuel utilization

In the water-cooled hearth, which is manufactured from hardened, acid-resistant steel, straw is converted into heat at temperatures of between 1000 and 1200 °C. The hearth and boiler transfer the heat directly to the circulating boiler water.

The effective fuel and combustion air mixture in the hearth ensures complete burning of the fuel, resulting in efficiency levels of up to 90%.

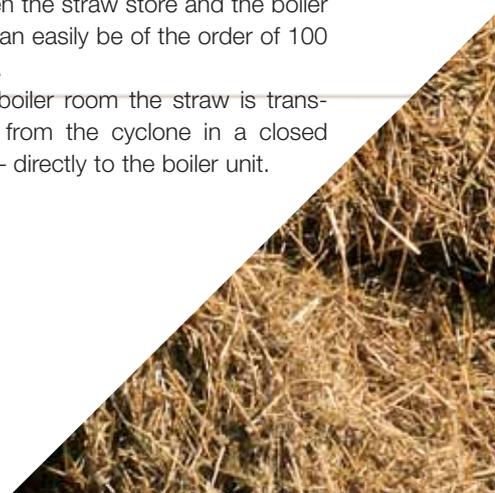
## Straw transport

The straw is automatically transported to the shredder, where the rotating screw-shaped shredder drums pull the straw from the sides towards the middle of the unit, ensuring effective shredding and thereby accurate feeding (PLC controlled).

A screw transports the shredded straw to a stone trap, where stones, other heavy materials and corn are removed before the straw is sucked into the boiler room.

By using suction to draw the straw through a system of pipes, lumps of straw can be avoided. The distance between the straw store and the boiler room can easily be of the order of 100 metres.

In the boiler room the straw is transported from the cyclone in a closed screw – directly to the boiler unit.





# Linka boilers



Linka 70-93 series



Linka H series

## Optimal operation and efficiency

Linka boilers are constructed as traditional 3-pass boilers with a large fire box and horizontal flue gas pipes.

The large water capacity of Linka boilers ensures good heat accumulation, which combined with the large heating surface optimises operation and reduces the number of boiler starts.

The large convection section with its smooth boiler flues ensures effective cooling of the flue gases, resulting in efficiency levels of up to 90%.

## Unique and flexible

The hearth is specially developed for use with biofuels, but if energy policies should change, Linka boilers can be fitted with an oil or gas burner and still achieve the same high levels of efficiency.

## Quality standards

The boilers meet the following standards: AT (Denmark), SA (Sweden) and TÜV (Germany).

The boilers are manufactured from high-quality steel from Europe's leading steel works.



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*LIN-KA Maskinfabrik A/S is located in West-Jutland, Denmark. LIN-KA is the leading supplier to the Danish market of high-tech heat production solutions using biofuels. The company employs approximately 30 trained specialists. In the 30 years in which LIN-KA has existed, we have delivered several thousand fully automatic units to customers in Denmark and across Europe.*