CEBCON TECHNOLOGIES

INNOVATIVE PELLET CONDITIONER

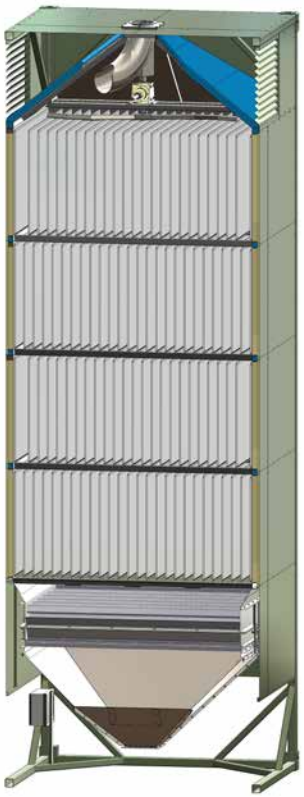
for a more efficient and environmentally friendly way of pellet cooling

CEBCON - Sustainable solutions for the economical treatment of biomass.

FLEXIBLE.
MODULAR.
EFFICIENT.

As a modular system, our systems offer intelligent solutions that are especially energy-efficient, flexible and safe.

FLEXIBILITY | MODULARITY | SUSTAINABILITY | INNOVATION | BIOMASS | EXPERIENCE



▲ Pellet conditioner

Innovative Pellet Conditioner

for a more efficient and environmentally friendly way of pellet cooling

The new innovative pellet conditioner from **CEBCON Technologies** is characterized by an exceedingly effective and uniform cooling process of the pellets. The pellets are also cooled down to the core, which prevents „reheating“ in the silo and the associated loss of quality.

The conditioning is a constant process and independent of external influences such as temperature and humidity. Also during summertime a standard-compliant pellet cooling is even possible below 30°C. Since no air is used to cool the pellets, they do not dry up, the water content remains stable and the pellet production plant can be much better adjusted to an optimum water content target (e.g. 9%).

Even small fluctuations in the moisture of the raw material can be compensated. This is achieved by the applied conditioning method which combines the residence time and the distribution / homogenization of the pellets. The principle of contact cooling leads to better cooling and curing of the pellets to reduce abrasion, avoid dust formation and exhaust air. The conditioner concists of multiple heat exchanger plates, which are arranged in a special way and form the chutes of the cooler. The heat of the pellets is transferred to the cooling water through the heat exchanger plates. This reduces the power consumption up to 85%, as neither a fan nor a filter system is needed for cooling.

In addition, the heat from the heated cooling water can be recovered and reused in-house. The recooling takes place via a heat exchanger in order to eliminate consumption of cooling water.

The need for maintenance and repair is reduced too due to the design features, since no fabric filters or large fans are needed. Due to the small number of moving parts, the wear, the risk of failure and operating expenses are very low.

The conditioner offers a high degree of operational safety, as the mode of operation avoids the conventional explosion and fire risks.

And finally, the pellet cooler is flexible and easy to use: It is equipped with necessary temperature and level sensors as well as control technology and can be integrated into the upstream plant control system for automated operation. In addition, the cooler is designed in standard container format, which reduces the transport and installation costs. Pre-assembly and testing are carried out at the factory before delivery to the customer: These result in a shorter assembly time (by up to 80%) and accelerated commissioning.

With the CEBCON pellet conditioner you get a much better economy, increased reliability and optimized production control.

Features & Advantages

- optimized control of product quality in terms of temperature and water content
- evenly cooled pellets (even during summertime below 30°C possible)
- energy-efficient heat recovery of about 600 MWh/a*
- electricity savings of about 100 MWh/a *
- energy savings and optimized production control lead to additional earnings of up to 120,000 EUR/a*
- minimized fire and failure risk due to design features
- reduced expenditure for transportation and installation due to containerisation
- possible cooling capacity: 2-5 t/h
- Various granulates, e.g. pellets made of:
  - ➞ by-products from the forestry and timber industry, sawdust, logs
  - ➞ agricultural waste such as straw, shells, husks
  - ➞ solid fermentation residues from biogas production
  - ➞ whole plants such as bamboo, miscanthus
  - ➞ wood from short-rotation plantations
  - ➞ animal excrements

* 7.000 h/a, 5 t/h ** other sizes on request

Using equipment from CEBCON technologies, leads to:

REDUCTION IN OPERATING COSTS
due to high energy efficiency

FLEXIBILITY
due to semi-mobile construction on a container basis

OPERATIONAL SAFETY
due to systems´ mode of functioning

PRACTICABILITY
due to considerable experience that has gone into the development

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