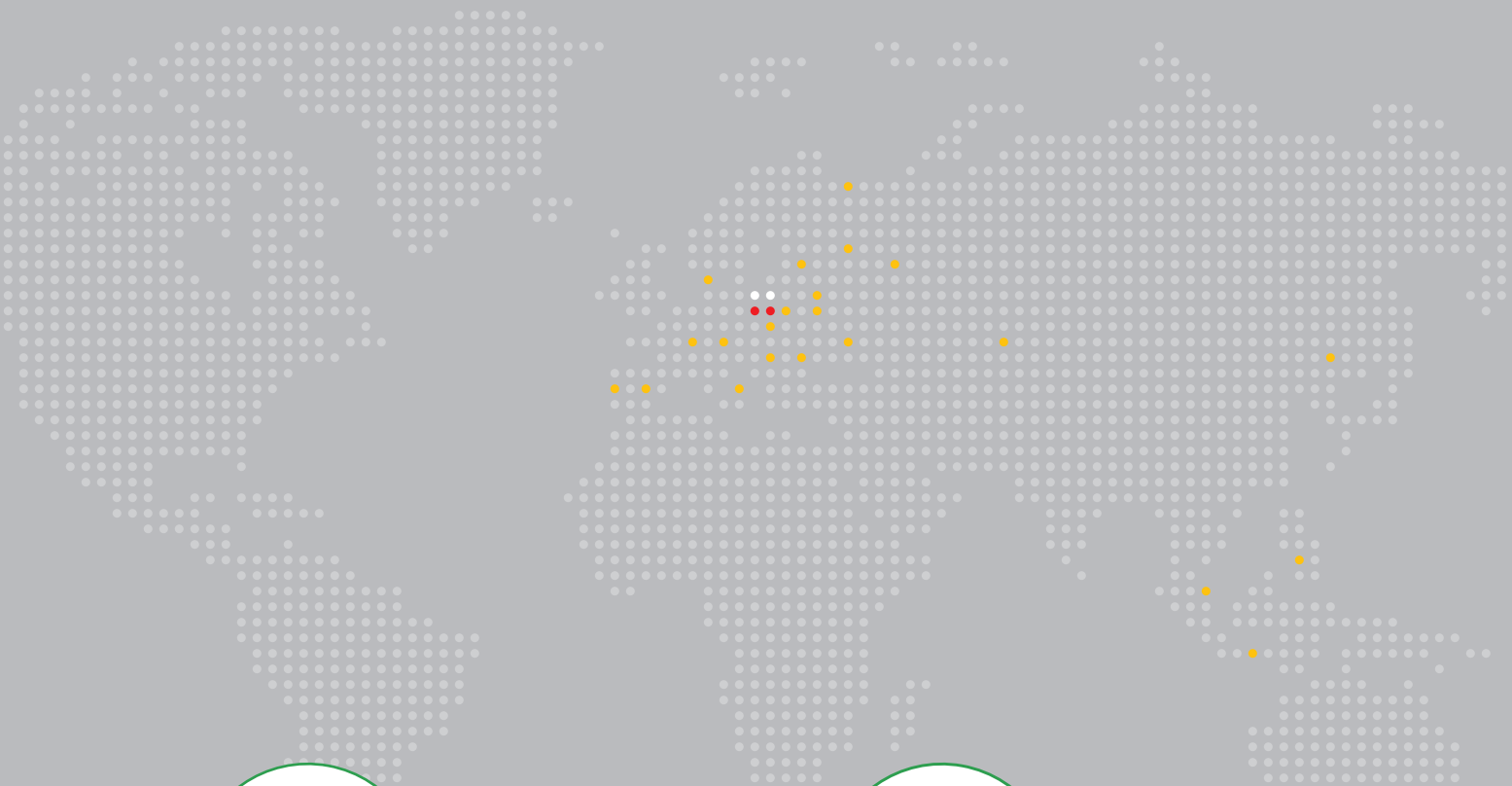




COMERC

ACCORDING TO NATURE

Complete solutions for wood biomass



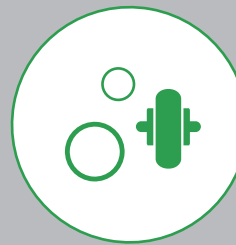
Production lines



Machinery and devices

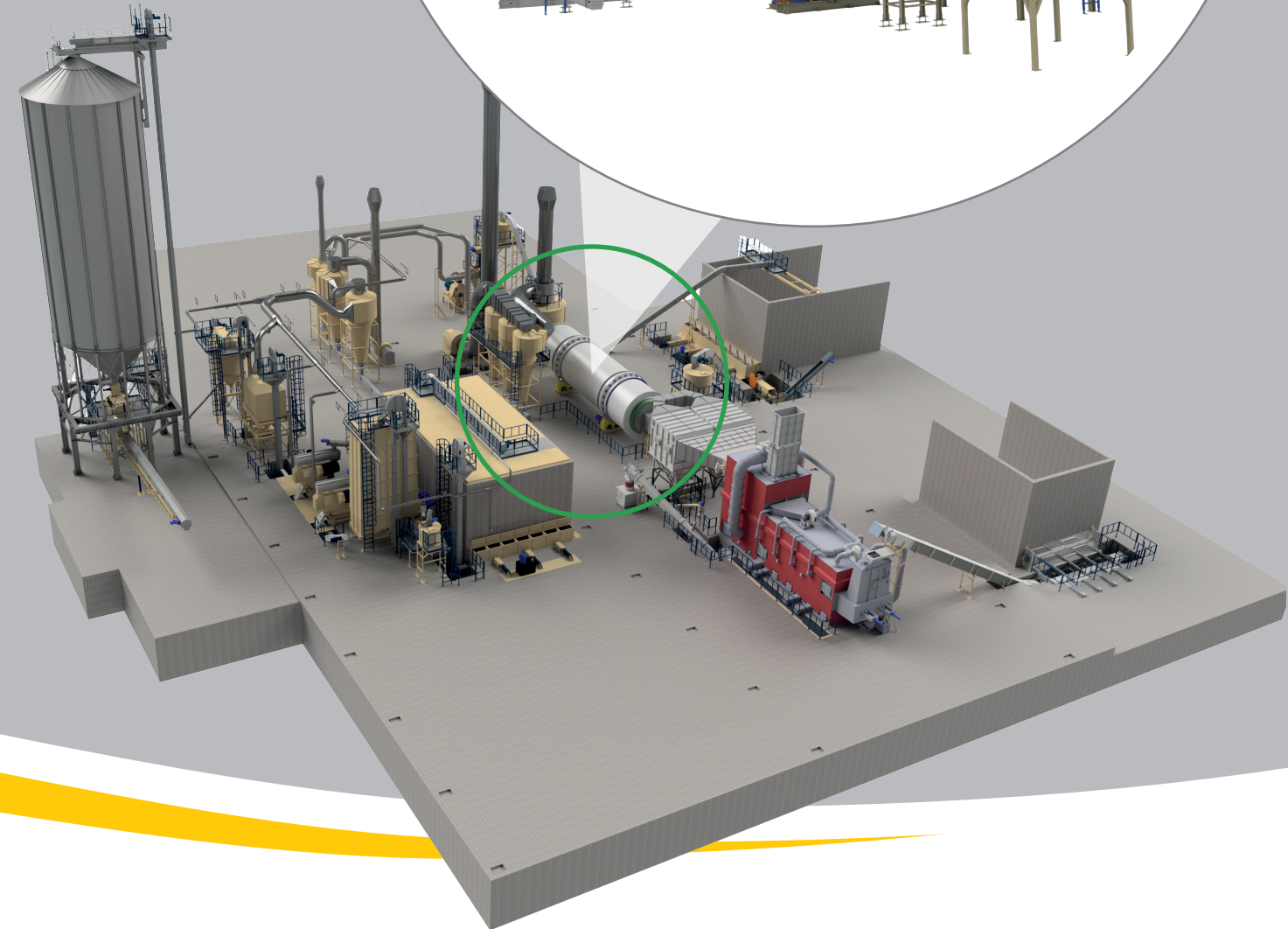


Automatic control system



Dies and rollers

Drum dryers
CSB



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Drum dryers CSB

Manufactured by Comerc company CSB Drum dryers are designed for drying chipped biomass (sawdust, microchips, straw etc.) with fraction size of 5 x 15 x 15 mm. CSB dryers are adapted to work with heat generators for high-quality dry biomass with humidity up to 20% as well as with low-quality wet biomass with humidity up to 55%. Depending on the requirements and purpose CSB dryers could work with capacity from 2 t/h to 15 t/h.

Advantages

LTD - low temperature drying

Special design of the drum allows to dry material by large amount of air with lower temperature (approx. 350 °C), that distinguishes our product from the majority of driers available on the market.

OPS - one-pass system

One-pass system of material flow through the drying drum guarantees that smaller particles be released from drum in short time, which prevents from over-drying.

GCS - gas cleaning system

Drying gas cleaning system prevents from sparks and soot getting into drying material.

FPS - fire-protection system

Automatic fire protection system that monitors all temperatures, feeding by raw material and detects sparks (FireFly) at the output of drying drum. System automatically starts procedures preventing from ignition of material in drum dryer. Nevertheless, if ignition takes place system extinguishes it and prevents from getting into further production process.

SOV - shut-off valve

Shut-off valve automatically cuts off flow of hot drying agent into drum dryer.

HCS - humidity control system

Automatic humidity control system of dried material enables precise drying to set material humidity.



Characteristics of operation

CSB dryers are designed and adapted to work with heat generators for high-quality dry biomass with humidity up to 20% as well as with low-quality wet biomass with humidity up to 55%.

In case when heat generator is supplied by dry material, fuel feeding system automatically takes a bit of dried material as a fuel.

The disadvantage of this solution is decreasing of efficiency by approximately 25%. Dried material instead of getting into production goes to heat generator as fuel.

The advantages of such a solution are lower price of heat generator and lower operation costs. In that case, there is no need to buy fuel store and conveyor system, which significantly reduces operating costs.

To sum up, costs of using a generator for dry or wet biomass are on similar level. Heat generators for wet material applies when low-quality wood wastes (e.g. bark) have to be managed.

Basic technical parameters of drum dryer

Model/Type	CSB 2 - 15
Material	boiler steel, structural steel, stainless steel
Overlay	galvanized steel, paint, spray painting
Thickness of mineral thermal insulation	100 - 200 mm
Drum diameter	1,8 - 5,4 m
Lenght	8 - 15 m
Drive of shut off gate valve	pneumatic Festo
Drives	worm gear motors and helical gear motors
NORD	20 – 60 m ³
Capacity of expansion chamber	20 – 60 m ³
Number of explosion vents	2 – 6 pcs.
Drying temperature	450 – 550 °C
Temperature at the output from expansion chamber	85 – 95 °C
Capacity	2 – 15 t/h
Manufacturer	Comerc

