



Biomass **Solutions**

ONECPM.COM

Our extensive experience in processing agricultural material has made us a leader in renewable fuel production. We help our customers create renewable diesel, ethanol, sustainable aviation fuel, biogas, and energy storage technologies. Our machines create wood pellets, fire logs, and briquettes that provide sustainable, renewable, cleaner-burning fuels.



INFO@CPM.NET

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GRINDING • CONDITIONING • PELLETING • COOLING • SIFTING • STORAGE OF PELLETS

Ready for anything

The market of Densified Biomass Fuels (DBFs) is rapidly growing. CPM combined the latest manufacturing technology to provide the highest quality pellet mills in the world with the best production levels ever achieved, along with excellent pellet quality.

1. Drying

The majority of the wood waste is sawdust and wood chips from spruce and pine, which comes from the sawmills. The average moisture content is between 50-60%. Therefore, drying is a necessary step in preparing wood residues for pelleting. After the dryer the product is transported to the storage warehouse or temporary feed bin for the hammermill, depending on process layout.

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2. Grinding

The product coming from the dryer can be fed directly into the hammermill if flow is constant; otherwise, a buffer bin is necessary. For the grinding of the wood chips and shavings, a heavy-duty hammermill is needed. Uniform particle size is important for a good pellet quality and little dust content.

3. Pelleting

The pellet mills are built to operate 24 hours a day under tough running conditions to match the output requirements. Extensive field research has proven the one-piece cast gearbox can produce continuously in the most adverse condition worldwide.



4. Cooling

After pelleting, the pellets must be cooled to enhance pellet hardness and storage stability. Counterflow coolers provide efficient, trouble-free and affordable cooling. Simple in design, mechanically trouble-free and requiring minimal space, the CPM Counterflow Cooler provides improved moisture control and low-shock tempered cooling.

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DRYING

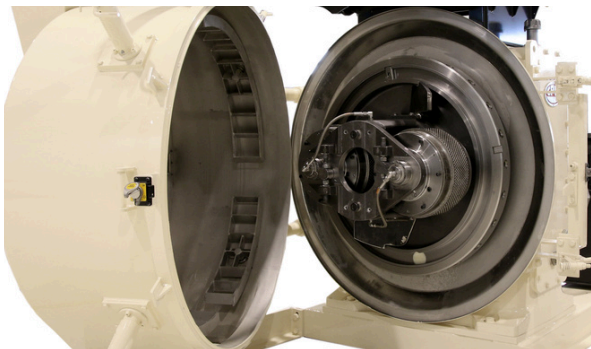
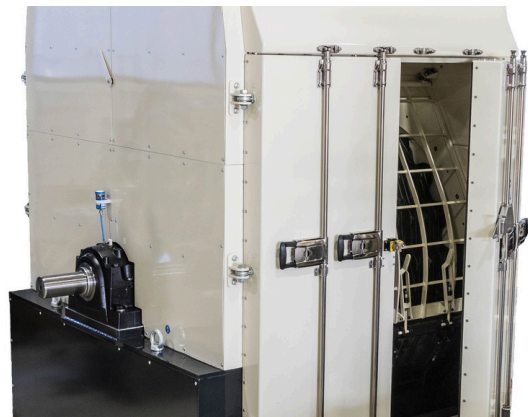
Typically, wet wood waste is stored outside on a concrete floor to avoid contamination with sand or stones. The raw material is usually transported into the dryer system by means of a shovel.

Often the shovel operator has the possibility to take material from various sources and feed a crude product drying system.

Drying is the most energy consuming operation in a wood pelleting plant. Both drum-type and belt-type dryers are used, depending on the availability of drying energy. For example, bark can be used to feed the burner of a drum dryer and condensate from drying kilns can be used to feed the heat exchangers of belt dryers.

GRINDING

Hammermill grinders are the most suitable machines to reduce the particle size of the fibrous shavings, dust or chips. The hammermills are very robust, and provide an extremely high hammer tip speed, as well as a minimum clearance between hammer and screen. These features guarantee the most energy efficient grinding process.



PELLETING

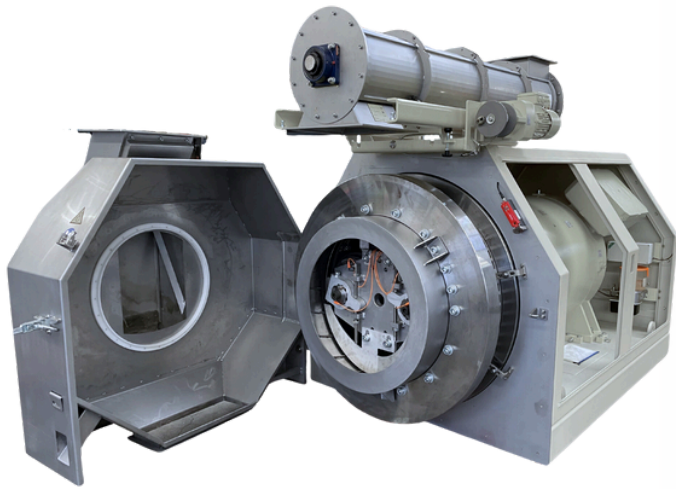
CPM pellet mills provide all the tools to produce pellets at high capacity, low energy consumption and with superior pellet quality. Due to special die and roller design, the production cost has been reduced to a minimum. Because of the heavy-duty gearbox construction, the CPM pellet mills have proven to be the strongest and most reliable machines on the market.



COOLING

Cooling of the pellets is required to obtain a stable end product. The pellets can now be sifted and stored. Often the pellets are stored in either silos or in a flat storage. In some cases, pellets are supplied in 40 lb. bags.

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**DIRECT DRIVE, HIGH-CAPACITY
PELLET MILL**

Made for the Biomass Industry

The CPM Direct Drive Pellet Mill is the only one of its kind in the biomass industry today. It can process all types of biomass feedstocks including agricultural residues and woody biomass. The special requirements of the biomass industry are incorporated into the design of the direct drive, high-capacity Pellet Mill including engine power and die size configurations.

Customer Benefits

- Simplified maintenance due to reduced number of mechanical components
- Higher torque produces denser pellets
- High efficiency with lowest kilowatt per ton of energy used amongst all competitor biomass pellet mills
- More sustainable with less grease required
- Low vibration and low die speed preserves the longevity of machine parts

Pellet Mill Dies

Our pellet mill dies portfolio boasts technological prowess, rapid turnaround times, strong performance and service excellence. With the integration of Dorssers, CPM is your one-stop-shop for dies of all brands.



Have you experienced The CPM Advantage?

We don't disappear when the deal is done. Our team of experts sticks there with you. You get all of us—local representatives, application experts, product engineers, and responsive technical support—365 days a year.

With CPM, you get so much more. We're your complete process partners because we offer a product line to meet the demands of virtually every application in the processing industries. You can depend on our equipment and expertise to help you grind, crush, crumble, break, flake, hull, hammer, shred, condition, pellet, and cool just about anything. We help you maximize efficiency to meet the demands of high-quality pellets, production rates, and flexibility.

This relentless focus on our customers, paired with systems built to last, is a winning combination that we like to call The CPM Advantage. Your success is our success.

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CPM BIOMASS INNOVATIONS

- Pellet length control. Type Zenith
- Twin Track. Higher efficiency, smaller footprint
- Oil lubricated and cooled rollers. Longer service life roller bearings
- Temperature measurement rollers. Feedback from inside the machine
- Fine grinding. Biomass for power plants

DI-PIU SYSTEMS **BRIQUETTING PRESS**

Create sustainable value from wood and industrial waste. With our briquetting presses, you can compact your waste or recycle the byproduct into high-density briquettes. These briquettes can be sustainably re-used as material in other processes or stored for reduced disposal cost:



Mechanical Briquetting & Hydraulic Briquetting



From the food you eat to the fuels you require, CPM plays an important role in building a better world. Our experienced team and family of trusted brands are working together to make our planet a better place to live.

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