HOLZ-HENKEL

Compact pelleting plant for varying raw material

Cordes Holding approached Rudnick & Enners with a special request: The company was looking for a flexible pelleting plant which can process various types of softwood and hardwood with an initial moisture content of around 15 % without further drying. Rudnick & Enners was happy to accept this challenge and delivered a compact pelleting plant including a bagging machine and a few special technical features.

Holz-Henkel is part of the Cordes Group of Bremerhaven and one of its planed timber specialists in timber trade and the DIY sector. At its production site in Göttingen/DE, the company works in two shifts and processes around 120,000 m3 of lumber a year into façade and terrace products, profiled wood and solid wood floorboards with the help of five planing lines. Various types of softwood, such as spruce, fir, larch, Douglas fir, cedar and hemlock as well as thermally treated pine and spruce, are used as raw material. "One quarter of our products are intended for DIY stores, while 75% are sold to the timber trade sector," managing director Torsten Herzel tells us. For as many as 15 years, Holz-Henkel has been producing briquettes from the wood chips and sawdust which accumulate during production. In order to create even more added value, the decision was made last year to invest in a pelleting plant. The Cordes Group has been working successfully with Rudnick & Enners of Alpenrod/DE for many years. For example, the plant specialist from Westerwald has already installed pelleting solutions at Rettenmeier's Slovakian production site in Liptovský Hrádok as well as at Rettenmeier's site in Ramstein/DE. Therefore, it made sense to trust the expertise of Rudnick & Enners once again.

"Our goal was to make the best possible use of the existing infrastructure and to have a plant which is able to react flexibly to changing materials and moisture content. For this purpose, we installed a few special technical features," Rudnick & Enners's managing director Sven Rudnick explains. The project was carried out very fast: The order had been placed in the summer of 2022 and already in January this year, the first pellets came out of the plant.



Compact, high-performance plant: above the pellet press, below the cooler and the vibrating chute into the silo

High flexibility

Holz-Henkel has been producing briquettes from wood waste for around 15 years. Rudnick & Enners recently connected the new pelleting plant to the existing briquetting machine in such a way that Holz-Henkel can switch back and forth between the two at the touch of a button. "One of our specifications was that we can quickly and easily switch between the machines," Michael Glitz, Technical Manager at Holz-Henkel, emphasizes and adds: "This makes us very flexible and able to react quickly to changing market conditions." Up to 25,000 tons of briquettes are produced each year. The new pelleting plant is designed for an annual output of around 40,000 tons. Together, the two lines are well designed for the amount of wood waste that accumulates in Göttingen.

Via a screw conveyor, the wood chips and sawdust reach either the briquetting machine or pelleting plant. In front of the pellet press, starch can be added if necessary. "The wood waste with its initial moisture content of up to 17% and the frequently varying types of wood and mixing ratios were the main challenges of this project," Christian Gebele, project manager at Rudnick & Enners, recalls. "When it comes to our pellet press, we rely on automatic roller adjustment and pellet density control in order to be able to process a wide range of types of wood with varying moisture content," Rudnick explains. "The roller adjustment works perfectly," Glitz adds. The Rudnick & Enners pellet press is designed for a capacity of 5.5 tons per hour or more. "When the raw material is homogeneous, the press can even produce 6 to 6.5 tons per hour," the technical manager says and adds: "Despite different types of wood and mixing ratios, we always use the same die.



The Rudnick & Enners pellet press in use at Holz-Henkel is designed for an output of $5.5\,\mathrm{t/h}$

REPORT



Rudnick & Enners also delivered a bagging machine which is connected to the exiting briquetting machine

It's fun to see how easily the plant can handle different initial moisture levels and densities of the material – regardless of whether we feed in pine, hemlock, spruce or larch." "We will soon install another pellet press with a capacity of 7 to 8 tons per hour, with automatic roller adjustment and a horizontal cooling system at a customer in Germany," Rudnick tells us.

Low fine materials content

After they leave the press, the pellets pass through the Rudnick & Enners horizontal cooler where they are gently cooled down. After the screening process, the pellets are temporarily stored in a storage container until they are bagged. In addition to the entire control system, Rudnick & Enners was also responsible for this part of the plant. Holz-Henkel currently fills the pellets in 15 kg bags. Other bag formats are also possible on request. "Our pellets are EN-A1 certified. We produce pellets of good quality with a very low fine materials content," Glitz underlines. The company is also considering to build a truck loading station in Göttingen. The briquettes and pellets are sold to DIY stores and builders' merchants.

Successful cooperation

"Rudnick & Enners once again delivered a very functional system solution for our pellet mill," Herzel confirms. He is particularly happy about the appreciative collaboration. The assembly of the plant also ran smoothly. "The best feedback is me not being contacted about anything during the assembly phase," the managing director says with a smile.

HOLZ-HENKEL

Established in: 1888, part of the Cordes Group since 2002

Location: Göttingen/DE

Management: Andreas Cordes

Managing director: Torsten Herzel

Staff: 120

Area: 90,000 m², 75,000 m² of which are roofed

Segments: production of planed timber (60 %), import and export of mostly softwood lumber (40 %)

Raw material used: 120,000 m³/year

Products: profiled products for terraces and façades, planed timber (quality control by VEH), pellets, briquettes

Sales: 25 % to DIY sector, 75 % to timber trade



Happy faces: Sven Rudnick, Michael Glitz and Christian Gebele (from left) in front of the Rudnick & Enners pellet press

With the bagging machine, Holz-Henkel can produce 10, 12 or 15 kg bags in various formats. The company is also considering to build a truck loading station in Göttingen





WE WOULD LIKE TO THANK HOLZ-HENKEL FOR THE GOOD COOPERATION!



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Visit us at the Ligna in Hannover, 15 – 19 May 2023: Hall 25, Booth K25





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