

A family of mining technology innovators

As market conditions change for metals and minerals, technology must also adapt to increase profit margins and the overall efficiency of any pit operation. For equipment suppliers, keeping pace with operators' needs in this regard requires adaptability and ingenuity. We speak to Thomas Plochberger, general manager of dry and wet grinding technologies supplier **Cemtec**, about how his company has constantly kept in step with its clients.

The story of Cemtec's emergence as a world-renowned specialist in dry and wet grinding technologies for many kinds of bulk materials, stones and ores is one of evolution and adaptation.

"We have been on the market for 30 years," says Thomas Plochberger, the company's general manager. "Cemtec, which is still 100%-family owned, was founded by my father and it started out by supplying spare parts for the local mining industry. Then, we began the construction of ball mills for the cement and mining industries. That was the first ten years of our company."

"We continually sample the process to know the fineness of the particles. Then you can act on that information to optimise the process using machine learning and artificial intelligence. Introducing that technology into a conservative industry is the next step for us."

The following decade saw the company switch to providing turnkey solutions for the cement industry in the Middle East, where there was great demand for cement grinding terminals until the financial crisis of 2008. "From there, we reinvented ourselves again to become a key supplier to the classic mining industry," explains Plochberger. "Soon after we got the biggest contract in our history at a gold mining project in Russia."

That project, which required Cemtec to provide the entire grinding package with a capacity for 1,300t/hour of gold ore, marked a turning point in the

company's development, launching it into projects in Africa and further afield.

From spare parts to high-tech

Since then, Cemtec's range of products and services has expanded to include plant construction, rotary drums, mills, air classifiers, agglomeration, manufacturing and its CEOPS analysis system for measuring particle sizes.

The company not only provides single units, but also complete solutions for civil engineering and statics, steel structures, material transport and temporary storage. What's more, these packages include electrical power supply

Much of this capacity for innovation stems from Cemtec's investment in its pilot plant in Enns, Austria. "The plant and the people who work there help us to understand the materials we have to grind," says Plochberger. "It doesn't matter what the material is, but you have to understand what you are grinding. Our clients are always bringing us new challenges."

A digital future

One of the biggest challenges that Cemtec is helping with is the need to reduce energy consumption, as a high proportion of the overall power load goes into the grinding process. The company's solution is the optimisation of flow rates with particle sizes.

"Our future direction will be determined by digitalisation and process optimisation," says Plochberger, "So, we are delivering products like online particle sizing. Most of our machines are energy intensive, so the energy consumption rises as the fineness of the target rises.

"We have to know what the machines are producing in terms of throughput and fineness. We continually sample the process to know the fineness of the particles. Then you can act on that information to optimise the process using machine learning and AI. Introducing that technology into a conservative industry is the next step for us."

Through the many steps in its evolution the company has remained family-owned, and it is this, along with its close collaboration with clients and an in-depth understanding of their needs, that has helped Cemtec to adapt in an ever-changing market. ●

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