

Press Release

Capacity upgrade with new flash drying system

Dolina Nidy Sp.z.o.o. in Pińczów, Poland, extends its gypsum production capacities with a new flash dryer system for flue-gas desulphurization (FGD) gypsum, opting once again for Grenzebach technology and expertise. The two companies have been cooperating successfully for nearly two decades.

From September 2020, the new flash dryer system on the premises of Dolina Nidy Sp.z.o.o will be processing some 22 tonnes of moist synthetic gypsum per hour. The gypsum is generated during desulphurization of flue gas from power stations. Along with natural gypsum, the synthetic material, which is often simply called FGD gypsum (flue gas desulphurization gypsum), is a valuable resource for manufacturers of gypsum products. With its new flash drying system, Dolina Nidy secures its flexibility in raw material use. The moist FGD gypsum will be processed into dry dihydrate and then go directly to the existing calcining facility.

Precise planning thanks to 3D scanning

"We are pleased that Dolina Nidy got in touch with Grenzebach right after taking the decision to extend their existing gypsum processing facilities. For us this is a great acknowledgement and very positive feedback on the work done so far," says Gerhard Becker, Senior Sales Manager Gypsum Technology at Grenzebach in Bad Hersfeld, Germany. Integrating another flash dryer system into the existing calcining facility is an exciting task for Becker and his team. First, the Grenzebach experts made a complete 3D scan of the existing plant. "Thanks to the precise 3D data, the new equipment can be incorporated into the existing steelwork and plant environment in a very accurate and straightforward manner," explains Gerhard Becker.

Smooth integration thanks to close coordination

The capacity upgrade is done in close cooperation with the specialists at Dolina Nidy. Together, Grenzebach and Dolina Nidy determined the optimum time for installation and commissioning. The joint objective behind this is to make sure that the production downtime at Dolina Nidy is minimized. The specialists work hand in hand, from installation to commissioning. Compliance with agreed deadlines and comprehensive training already during the installation phase enable the customer to make optimal use of the new system from the start.

Mill drying and calcining plants supplied already in 2002

The new flash dryer system will be integrated into the mill drying and calcining plants that Grenzebach supplied to Dolina Nidy Sp.z.o.o. in 2002. "We are very satisfied with the Grenzebach technology and service. It was clear to us from the start that we would ask Grenzebach to provide us with advice and supply the equipment for the additional FGD gypsum processing system. We have enjoyed a pleasant cooperation and excellent partnership for nearly two decades now," underlines Rafal Lisik, Head of Investment Department at ATLAS Groupe (Dolina Nidy member of ATLAS Group)

On the factory premises in Pińczów, some 90 minutes from Krakow, two Grenzebach mill drying and calcining plants, each consisting of a mill drying system and rotary calciner with indirect heating system and integrated cooler, have already been in operation since 2002. They have a combined capacity of 1008 tonnes of

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beta-hemihydrate (stucco) per day. The feed material processed there by the Polish company consists of 100 per cent natural gypsum and, alternatively, blends of 90 per cent natural gypsum and 10 per cent FGD gypsum. The two plants produce beta-hemihydrate (stucco) or high-temperature plaster. Back in 2006, Grenzebach already supplied the first flash drying system to Pińczów, designed for processing 100 per cent FGD gypsum at a rated output of 480 tonnes of dihydrate per day. And at another location of the company, in Konin, about 100 kilometres south of Poznań, a steam-heated Grenzebach calcining plant for processing 100 per cent FGD gypsum was installed in 2007. It has a capacity of 720 tonnes of beta-hemihydrate (stucco) per day.

Strategic technology expansion

Its new flash dryer system in Pińczów gives Dolina Nidy even more flexibility in its use of natural gypsum and FGD gypsum. Raw material sourcing can be placed on a broader basis and be given a more strategic orientation. Rafal Lisik: "With the new flash dryer system we are further extending our production capacity - and we strengthen our position as an important partner to our customers who is always able to meet demand."

With the equipment supplied by Grenzebach, Dolina Nidy produces the base material for levelling plasters, finish coatings, gypsum-based adhesives, wall plasters and gypsum binders for prefabricated elements. The resulting finished products for the building sector meet the high requirements and expectations of the customers and comply with applicable environmental regulations.

Already 19 Grenzebach flash dryer systems supplied worldwide

With the new plant for Dolina Nidy, Grenzebach has now supplied a total of 19 flash dryer systems for synthetic gypsum to customers around the world. An active contribution to making good use of by-products from flue-gas desulphurization systems in fossil fuel power plants and other chemical processes.

Wide range of equipment and services for the international gypsum industry

With more than 300 plants supplied, Grenzebach supports its customers in the gypsum industry with production solutions tailored to their specific needs. Whether natural or synthetic gypsum raw material, Grenzebach supplies turn-key plants and components for the production of stucco, high-temperature plaster, dry mixes, alpha-hemihydrate, gypsum plasterboard and gypsum wall blocks. Aimed at ensuring highest performance in plant operation, the Grenzebach experts provide all-encompassing support: from the analysis of the raw materials at its own laboratory, the analysis of existing infrastructure, facility planning, up to installation, commissioning and staff training - all needs are well looked after. And Grenzebach's 24/7 service is available worldwide.

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Dolina Nidy Sp.z.o.o. extends its gypsum production capacity in Pińczów , Poland. For even better flexibility in raw material use, Grenzebach integrates a new FGD flash drying system into the existing calcination plant building.

Source: Grenzebach



A 3D scanner allows the Grenzebach experts to precisely map existing equipment items and quickly and easily incorporate the new flash dryer system into the existing calcining plant.

Source: Grenzebach

Grenzebach is a leading automatization solution provider for the global glass, building material and intralogistics market. In addition, the company develops new application areas, such as Friction Stir Welding, the automatization of industrial additive manufacturing and digital networking. The digitization platform SERICY allows customers to develop their own future-proof digital know-how. Grenzebach ranks among the international technology leaders in its markets. The global manufacturing footprint with production sites in Germany, Romania, the US and China, as well as additional worldwide locations ensure customer support on-site. More than 3,000 systems installed in more than 55 countries stand for quality and reliability. Since the company opened its doors 60 years ago, it has been owned by the founding family. With an export ratio of more than 90 percent, Grenzebach is a global player.