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Fives FCB selected by Rohrdorfer Zement for the supply of a new clay calcination unit in Bavaria

On April 29th, 2024, Fives FCB and Rohrdorfer Zement signed a contract for the supply of a 50 tpd clay calcination unit to be implemented on EPC basis (excluding civil works) at Rohrdorf plant in Bavaria, Germany.

| Fives’ innovative solution for the production of an eco-friendly substitute to clinker

Rohrdorfer Zement was looking for the installation of an integrated clay calcination unit within the clinker production line to test various clay sources and qualities with the ultimate goal of reducing CO₂ emissions linked to cement production, targeting net zero emissions in 2038. Reducing the proportion of clinker in cement - notably by using fired clay - can cut CO₂ emissions in the cement production process by 40%, making clinker substitution one of the most important levers for decarbonizing cement.

“After a detailed technical review of the various existing technologies available on the market, we have decided that the flash calciner with an integrated clay calcination unit from Fives FCB was the best solution in terms of reliability, efficiency, and color control. We are confident that the offered clay calcination unit will be essential to move forward on our pathway to Net Zero.”

Dr. Helmut Leibinger, Managing Director of Net Zero Emission Labs GmbH

| A unique design providing the full activation of clays

The solution developed by Fives FCB is a flash calcination process. Its unique design with 5 independent process stages offers multiple advantages, and enables full activation of a wide range of clays by controlling particle size distribution, temperature and residence time of the material in the circuit. The absence of material contact with the flame ensures homogeneous calcination and therefore excellent product quality.

In addition, the FCB patented color control process, which reduces iron oxides in a separate decolorization step after calcination, efficiently produces the "traditional" grey color required by cement manufacturers without generating pollutants.

The pilot plant will feature Fives’ proprietary technologies in pyroprocess , such as:

- A 3-stage FCB preheater
- FCB Flash Calciner
- FCB Color control system

| Efficient project management

To better support Rohrdorfer Zement in the execution of this project with respect to quality, deadlines and performances, Fives FCB will provide its experience and know-how as a supplier of high-performance installations on EPC basis worldwide.

About Rohrdorfer

With a focus on sustainability, quality and customer orientation, Rohrdorfer produces high-quality building materials for regional needs at over 150 locations in Germany, Austria, Italy and Hungary. The product range includes cement, ready-mixed concrete, prefabricated parts and concrete products as well as sand and gravel. Rohrdorfer is aware of its ecological and social responsibility and strives for harmony between economic goals and ecological values in all its decisions. With numerous initiatives to conserve resources and innovations, such as the first CO₂ recovery system in a German cement plant or Europe's first waste heat power plant, Rohrdorfer is a pioneer on the road to CO₂-neutral building materials production. The company is headquartered in Rohrdorf, Bavaria.

www.rohrdorfer.eu

About Fives

Fives designs and supplies machines, process equipment and production lines for the world's leading manufacturers. From the first railway lines to the Eiffel Tower elevators and industry 4.0, Fives has been designing the disruptive solutions and technologies that make industry for over 200 years. A pioneer in decarbonization and digitalization, Fives is always one innovation ahead thanks to its ability to anticipate customer needs. By responding to the specificities of each market locally, Fives combines economic and environmental performance in 24 countries thanks to nearly 9,000 employees.

In 2023, Fives reached an order intake of over €2.5 billion.

Within the Cement & Minerals division, Fives FCB is a major technology provider in the cement and minerals industries, providing innovative and tailor-made solutions designed to maximize the energy efficiency and reduce the environmental footprint of cement producers' facilities.

www.fivesgroup.com

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