BEUMERGROUP

BEST PRACTICE

PERFECT RETROFIT: BELT APRON CONVEYOR TRANSPORTS CEMENT CLINKER SAFELY AND ECONOMICALLY

WHAT WAS THE CUSTOMER'S CHALLENGE TO US?

The Turkish cement manufacturer Göltaş Çimento decided to meet the increased demand for cement with an upgrade and modernization of its kiln. It also wanted to increase the conveying capacity of the clinker conveyor system from 250 to 400 tonnes per hour. At the time, a chain apron conveyor transported the clinker to the silo. One problem with the Göltaş Çimento plant: in order to produce economically, the manufacturer had been relying increasingly on alternative fuels for several years. As a result, the fines content of the feed material was continuously increasing – an extremely dirty job, for which cleaning personnel had to be constantly assigned. The existing conveyor was already transporting material at its capacity limit before the conversion.

As we have been working with Göltaş Çimento since 1996, it was obvious that they turned to us. The cement experts wanted a reliable partner at their side. Our task was to find an efficient solution. Fortunately, we were able to complete the project quickly. The work from the beginning of the project phase to installation and commissioning took about 15 months.

CUSTOMER PROFILE:

- Customer: Göltaş Çimento
- Province/region: Isparta, Turkey
- Bulk material to be transported: Cement
- Requirements: Increase conveying capacity from 250 to 400 tonnes per hour, clean operation with less pollution

BELTS - THE ECONOMICAL ALTERNATIVE

HOW DID WE GO ABOUT HANDLING THE PROJECT?

We provided the supervisor for the installation work, while the customer took care of the assembly himself. Thanks to the many years of cooperation, this project also proceeded in an exemplary manner. Only during the assembly of the conveyor in the very narrow concrete tunnel did difficulties arise for a while. But thanks to our very good preparation, we were also able to solve this problem with very limited installation space inside the concrete tunnel, which is in the 40° inclined part of the conveyor, within the specified time.

WHAT SOLUTION WAS WORKED OUT TOGETHER WITH THE CUSTOMER?

It was clear to us relatively quickly that with a more powerful chain apron conveyor we would have had to demolish the entire system, including the building structures and the concrete tunnel. An alternative to this was our belt version, which reaches double the conveying speed. This allowed our engineers to design the installation with the same width at increased capacity. The operator was able to retain the self-supporting steel structure as well as the conveyor bridge and concrete foundations. For Göltaş Çimento, this meant a significant cost saving and a very quick resumption of plant operation.

A few more facts: At 50 meters high, the silo is quite impressive. We had to realize an inclination of 40 degrees, which is challenging for fine clinker burned with high alternative fuel consumption. This was only possible with a steel box conveyor. This means that Göltaş Çimento can now work cleanly, despite the increased fines content. And hardly any material gets into the environment.

ANDRÉ TISSEN, DIRECTOR OF SALES CUSTOMER SUPPORT, BEUMER GROUP:

"Göltaş Çimento has saved a lot of money with the new solution. The steel and freight costs are significantly lower due to the thinner, lighter design of the belt apron conveyor."

YUSUF YENIGÜN, PLANT MANAGER; GÖLTAŞ ÇIMENTO, TURKEY:

"We have been working with the BEUMER Group since 1996. The specialists have supplied us with two clinker transport systems and four belt bucket elevators over the years. So we already knew the advantages of their steel belt technology."

QUIET, LOW IN MAINTENANCE, RELIABLE

PROFILE OF THE BEUMER SOLUTION:

- Product(s) used: Belt apron conveyor
- Number of products: 1
- Special characteristics: Steel box conveyor

DURATION OF THE PROJECT/IMPLEMENTATION:

- Approx. 15 months

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