

Bulk-material handling

As a specialist in bulk-material technology and handling in pneumatic and mechanical conveying and storage technology, **STAG** supplies customers worldwide in the fields of energy (power plants), environment (incineration plants) and building materials (cement plants) with systems for ash, adsorbents, cement, brown coal and dry sewage sludge logistics.

The BRICS countries see above-average economic growth rates and there is a need to catch up with developing a modern infrastructure. These two factors result in heavy building activity, energy demands above the average and expanding mountains of waste, all of which require ecological and future-oriented bulk-material logistics adapted to the respective needs. The customised conveying, storing and dosing systems of the Swiss vendor STAG are able to optimally meet these requirements.

The term 'bulk material' includes a wide variety of materials of diverse shapes and consistencies. Every single material has particular properties, and reacts differently during transport and dosing. For more than 60 years, the company STAG, headquartered in Maienfeld, Switzerland, has been engaged in pneumatic and mechanical conveyance, ensilage and dosing of bulk materials of any kind. Qualified engineers develop high-value overall solutions for most applications. Due to many years of experience on all continents, the company is also able to offer innovative solutions for applications in the BRICS countries, such as in the cement industry, for ash removal in coal-fired power stations, and the handling of fly ashes and adsorbents in waste-fuelled power stations.

"During the past 60 years, our company has acquired extensive knowledge on transporting bulk materials of any kind," says Martin Adam, sales and marketing director at STAG. "Due to this knowledge, we were able to realise innumerable overall solutions for bulk-material transport. At STAG, we do not revert to standard solutions; we design, manufacture and certify each particular plant according to the respective customer specifications. For this purpose, the users' bulk materials are tested as to their properties during the development process in the STAG test centre, and practical conveying trials are carried out. In doing so, we elaborate an optimal and specific solution for each project."

Huge challenge: railway tunnel

The supply system that has been implemented on the construction site of Europe's longest railway tunnel, which began construction in the Swiss Alps in 1999 and will be put into operation in 2016, illustrates that STAG is also able to cope with very special challenges. The tunnel is being bored



Brown coal logistic, Holcim (Switzerland), Untervaz.

in three sections, with the central section in the midst of the Alpine massif being reached via an access in 800m depth.

"For this tunnel section, STAG conceived a conveyance system that, over a distance of 1,000m, conveys cement and fly ash horizontally from a silo plant and then to an 800m depth. The cement is stored temporarily in the bottom shaft and conveyed into the concrete mixer," explains Adam.

Today, STAG's expert knowledge in bulk-material handling over very long distances in the field of cement processing, which also resulted from an intense cooperation with the international group HOLCIM, is successfully being implemented in different places throughout the world.

From concept to turnkey plant

STAG does not only produce its plants in Switzerland, but is also responsible for engineering, production monitoring and on-site commissioning.

"This approach enables us to offer plants an interesting price to the BRICS markets, and we can guarantee a high availability of the plants. That's why we cooperate with local manufacturers who previously underwent meticulous examination and, consequently, we ensure the high quality standard the BRICS countries require from us as a Swiss company," says Adam.

"STAG is in charge of the complete handling of the project, from the concept to the turnkey plant. With our engineering experiences, we also provide, as an independent partner, advisory support or project management tasks to the customer. Therefore, we are able to realise flexible solutions and certified quality at any time."

In combination with effective start-up operations and intensive training courses on site, STAG provides optimum solutions to the BRICS countries and contributes to tackle future major challenges in terms of economic development. ■

Further information
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