



Help with Handling

David Fregez and Victor Gardel, Standard Industrie International, France, talk about the company's practices and its operations in Africa.

Introduction

Helping the bulk handling industry to optimise the performance of its production tools has been at the heart of Standard Industrie International's goal for more than 30 years. Indeed, the company designs and manufactures equipment that facilitates the storage, flow and conveying of powders and bulk. In the constant pursuit of innovation, it has developed a wide range of products in order to meet the needs of its customers as effectively as possible. Its main areas of operation are the declogging of silos and hoppers, the optimisation of conveyor belts, industrial vacuum cleaning and vacuum intervention and silo cleaning.

The company initially began to operate within the European market, and it was only once it had established a solid base of knowledge and experience that it began to tackle international markets. The global presence that the

company now maintains not only ensures that it has a deep understanding of global markets, but also that it is never too far from its customers. The company operates widely across the African continent.

Industrial vacuum cleaning

In East Africa and especially in the Kenyan market, Standard Industrie International works with Bamburi Cement, a subsidiary of the Lafarge group. Bamburi's Kenyan plant has two production lines and has solved its cleaning problems using a CAM150M06I vacuum truck. This high-powered vacuum has a collection capacity of 16 m³, picking up dry powdery products of various particle sizes. It can be equipped with an explosion vent if vacuuming products with a risk of explosion, and a fire resistant valve in order to protect against the risk of explosion due to pressure, without the propagation



of the flame. Hydrophobic filter bags can also be offered as an option to filter any moisture from the vacuumed products. For Bamburi, it was necessary to add a hose boom in order to make work easier for the operators.

Also in Kenya, a mobile GAD50MVS vacuum unit (5000 mm WC 2000 m³/h) has helped National Cement at one of its grinding facilities. The plant, with a cement production capacity of around 1.5 million tpa, reduced its dust emissions, benefiting the nearby nature reserve at the same time.

Prior to the implementation of this equipment, the local authorities were laying heavy fines on the cement plant due to the particulate pollution it was generating. As the GAD50MVS has resolved this issue, the expected return period for the equipment has been significantly reduced.

It was also with its vacuuming solutions that Standard Industrie International was able to improve operations at Mombasa Cement, one of the biggest cement producers in East Africa. Together, the two companies have brought an end to the high cleaning costs that were associated with these lines, and safety has been optimised along the conveyors. Again, Mombasa Cement chose the GAD50MVC, delivered with two pre-separators in order to meet the customer's request to treat the two lines separately. After a technical study, recovery pre-separators of 2 m³ capacity were placed on a frame between the vacuum unit and the product, in order to make the recycling of the recovered product easier. During commissioning (in the presence of a Technical Salesman and of a Technical Assistant), 2 t of cement were vacuumed into a pit 5 m deep in 30 minutes.

Once these trials were validated, Mombasa Cement established four vacuum networks with 8 – 12 suction outlets each. They help the operators run cleaning in the most critical areas, which tend to be overlooked during manual cleaning.

Standard Industrie International also provided one of the biggest local cement plants with a UMA150M industrial vacuum truck through a local partner, a cleaning intervention that guarantees the quickest return on investment possible. This industrial vacuum equipment can be adapted to any type of trailer found locally, whether it is new or second hand, the

advantage being that no import charge must be paid on a new trailer from overseas. The installation is also completed locally.

The sale of an industrial vacuum unit like a UMA can help to cope with any type of cleaning at a cement plant, whether it is for the cleaning of the packing area on a regular basis, or along the conveyors. The unit's flexibility also gives the potential for a rapid response to incidents on elevator buckets, for example. This flexibility provides customers with the advantage of a cost-effective single solution to all types of cleaning applications. Indeed, the company offers adapted solutions, from the technical recommendation and the sale, to the installation and the maintenance of the equipment; the technical and sales teams are always available.

Air cannons

Another area in which Standard Industrie International and National Cement Company collaborated was the implementation of air cannons. The AIRCHOC[®] is a declogging device especially designed to break bridges and ratholes as they form in silos and storage bins. Its application has been extended to the cleaning of concretions in the thermal process such as in the cement, limestone, steel and incineration industries. The AIRCHOC[®] air cannon uses a capacity of compressed air from 1 – 400 l, depending on the model. This capacity is instantly released through a large hole that is directly connected at the storage unit. The effect corresponds to an explosion due to the sudden expansion of the compressed air.

Thirteen of these air cannons, controlled wirelessly, ended a clogging issue at the kiln inlet as part of the modernisation of the line. The AIRCHOC[®] wireless system was appropriate due to the fact it avoids the necessity of using a cable tray. The control panel, positioned 60 m away from the kiln inlet, ensures the safety of the operators while enabling the management of the site's entire complement of AIRCHOC[®] units. The control panel can handle up to 128 units and can also be connected to an automat or a computer.

Conveying

In Ghana, the company has installed 10 m of Liftube[®] in a cement plant. This installation, completed by a local service provider, has not only put an end to dust emissions and material spillages, but also reduced the cost of maintenance of the conveyors. The installation of a Liftube[®] also addressed the same issues for another customer in Benin, where 26 m of Liftube[®] has been delivered in its high temperature version. This model is heat-resistant up to 220 °C, and as such, it is used for conveying clinker. In Togo, 11 m of Liftube[®] has been installed on a clinker conveyor to stop dust emissions and pollution being released close to the city and neighbouring port.

Conclusion

In combination, the complete product range can be used to create a clean and safe working environment, tackling all foreseeable bulk and powder handling issues regardless of the process. With increasingly strict legislation and the need for industrial environments to become ever more secure, such measures are more important than ever. 🌱