Bulk Storage and Conveying Solutions

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Storage, Control, Movement and Processing of Loose Materials
Bags of conditioner

French producer Fareva are leaders in the formulation, production and filling of cosmetics, pharmaceuticals, food and home care products. Its facilities are world-wide and one such production centre is the subsidiary, Fillcare, with a production plant in Pontyclun, Mid Glamorgan. Fillcare, as a third party manufacturer, specialises in shampoos, hair conditioners and skincare products.

Recently they invested in a pneumatic, vacuum, bulk materials transfer system to move raw materials from bulk bags into the manufacturing vessel. This allowed them to scale up from 25kg bags to bulk bags with all the benefits of improved manual handling and productivity. However, one fatty alcohol in the form of wax flakes, which was common to most formulations, presented troublesome flow characteristics and compacting problems.

The non-free-flowing wax flakes, with an angle of repose of 60 degrees and above, were inclined to degrade, pack, cake or smear, even bridge and cavitate as well as solidify. These characteristics clearly rendered the flow activation devices designed into the materials handling system less effective and presented major problems, sufficient to stop production regularly while blockages were cleared.

The material transfer problem, however, was soon resolved when they consulted bulk solids handling specialists Flexicon (Europe) who had recently designed and commissioned a dedicated bulk bag conditioner to add to their portfolio of equipment accessories and was intended to sit upstream of the third party's bulk transfer system.

The conditioner's two hydraulic rams with specially-contoured end plates press opposing sides of bulk bags to loosen bulk, solid material that has solidified during storage and shipment, enabling bulk bag unloaders to discharge such material through bag spouts. It is especially intended for bulk bags containing classic materials prone to solidifying to the point at which pneumatically-activated flow promotion accessories, integral to bulk bag discharge, are inefficient or completely ineffective.

An optional, hydraulically-activated, variable-height turntable allows in-frame bag rotation and conditioning of bulk bags at varying heights. The number and pressure of hydraulic ram actuators, the height of the turntable and the number of 90-degree rotations are user-adjustable.

The conditioner is fully enclosed on all four sides for operator safety and includes full-height doors that are interlocked to prevent operation of the system when the doors are open.

For more information visit: www.flexicon.co.uk