

The Source for Dry Processing and Bulk Handling Technology

informamarkets

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A Complete Guide to Rotary Valve Safety With all the moving paris in a material convejing systm, menutacturing workers must texe unique preczutions with each picce of mechinery in the line - includng the rolary valve.


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Safe, Etficient Dry Bulk Truck, Railcar Loading/Unloading
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High-Speed Capper The Vallara ait Cmatic botle chuck-styla botte eqpar is idabl for the high-spead requiremaits of sneck food, contactionay, baeraga. phammecentixal, nutreceution, beauty, and numarous othar indistries. The triple-chuck capping mechine accommodates various size jars and meets production rats of $100 \mathrm{cydas} / \mathrm{min}$. A convejor continuously fledshattis, contaners, of ars by the star whet. Ohwex assemblias are rotalad on tha turret of the rolary capping mactine. Emply chucks pass over the swinging arm carrying each cap for attomatic pick and place. As each chuck is towered over the container, the turret antinesto motes and the cap is preciscly aligned with the recoling botlo. container, or jar then accuetoly torqued. Chuck assemblies relaese the cap and the chuck rises whila capped bottes are neaty docharget from the meching.
Val Tara S.R.L, SCHIO (VI). Itely +39045576224 www.valtaratec.com

## Online Valve Calculator

 This new orline velve celcitelor halps process anghears and other spacifiers determine the proper rotary vate forneaty any instaltion. Developed to provide a frea, preliminary recommandation, the calcitalo welks users through saloctions by industry and hygianic. requiremerts to roweal the ideal Carioke Roteval rotary whe modet, then inviles deta ipputs for desirad throughput, matarial buk dansily, and projected fling efliciancy to reveal the appropriate siass. It is ideal for guidance in processing pouders, pelats, grenulas, flikes, and chips. Gerkne USA Inc., Sumerset, NU 855-889-0098 www gerikkegroup.com

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# Material Activation System Solves Retention Problems 

Many ingredients in the food processing industry are prone to bridging, clinging, and clogging because of the high oil or moisture content. The stagnant material slows down production, compromises a company's recipe, and can even cause cross-batch contamination.
That was the problem encountered by Flax4Life, a commercial bakery that produces gluten-free muffins, brownies, and other baked goods. And it was happening at a critical stage when ingredients needed to flow at the right amount, at the right time, into the blending process


Aisweop: How it works

## The Problem

Blocks were wasting time, manpower, and material. The company used a vacuum convey system that handled materials at a rate of $6,000 \mathrm{~b} / \mathrm{hr}$. The incoming ingredients were divided into two receivers: Receiver 1 for sugar, oats, and tapioca flour; receiver 2 for ground flax and cocoa powder However, the oils in the flax, compounded by the
oil/fat content of the cocoa, as well as the general poor flow properties of both materials, allowed the material to not only bridge above the discharge, but also adhere to the vessel walls and cake the interior - all the way up to the filter bags. This led to mumerous delays and expensive wastage. They had to throw away up to 40 lb of mixture a day, and even had to pay to have it hauled away (see photo of wasted product).
All the other material flow aids failed miserably. The vibrators that came installed on the bottom of the hopper above the mixture practically turned the flax into concrete," said Stanley Rhea, maintenance department head at Flax4Life. Then we installed fluidizers, which were terrible. We still had to use hammers and sticks, and spent an hour a day to clean and keep things flowing."


Hopper with Airsweep

MODEL VA-06 DIMENSIONAL DIAGRAM


## Hopper with Airsweep

## The Solution: Small

But Powerful
The company contacted Control Concepts USA Inc. about AirSweep after seeing a YouTube video that demonstrated its effectivity on wet, sticky materials. It installed six AirSweep VA-06, which was ideal for their small vessel size but still very powerful Each $1 / 4-\mathrm{in}$. noczle could activate up to 3 ft of material. These were positioned in pairs at the top, center, and bottom of the hopper to guarantee continuous flow and eliminate product caking (see photos of Flax4Life equipment).

## How AirSweep Works

1. Each AirSweep nozzle disperses a powerful burst of high-pressure, high-volume air or inert gas in 250 -millisecond bursts.
2. The quick pulse sends a shock wave along the inner vessel wall, lifting and activating stalled material and breaking the friction bond between the material and vessel wall.
3. The system is pulsed in a preset sequence when material is to be discharged from the bin.
4. A typical system will consist of 3 or 4 AirSweep noczles, highflow solenoid valves, a sequence timer/controller, an air filter, a regulator, an air receiver, flex hoses, and ball valves.

The Result
"We have been very successful with Airsweep," said Rhea. It has solved $90 \%$ of the company's material retention problems. Aside


[^0]from reducing wastage and improving production speed, they no longer need to climb equipment to dismantle and clean the
ingredient receiver.
The company is happy with the results and its customer experience "Customer service has
been very helpful," said Rhea. "I would call with some ideas and they would work with me on it, and they were right. Installation was awesome and easy, and the units have saved the company a lot of man hours. My experience totally exceeded my expectations - a 10 out of 10 !

Airsweep material activation systems have a warranty of seven years and are wed by half of the SSP 500 companies, as well as thowsands of small companies. For more infomation, contact Control Concepts USA (Brooklyn, CT) at 860.9286551 or controlconceptsusa cam.

## Don't Put Up With Leaky Rotary Airlocks!



## The Disintegrator



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[^0]:    Wasted fax and cocoa

