

## WHERE FLUIDIZERS AND VIBRATORS FAILED, AIRSWEEP® GETS A 10 OUT OF 10

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.

### THE PROBLEM

#### **BLOCKS WERE WASTING TIME, MANPOWER AND (LITERALLY) MATERIAL**

The company used a vacuum convey system which handled materials at a rate of 6,000 lbs/hour. The incoming ingredients were divided into two receivers: Receiver 1 for sugar, oats and tapioca flour, and 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 numerous delays and expensive wastage. **They had to throw away up to 40 pounds of mixture a day, and even had to pay to have it hauled away.**

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, the 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."*



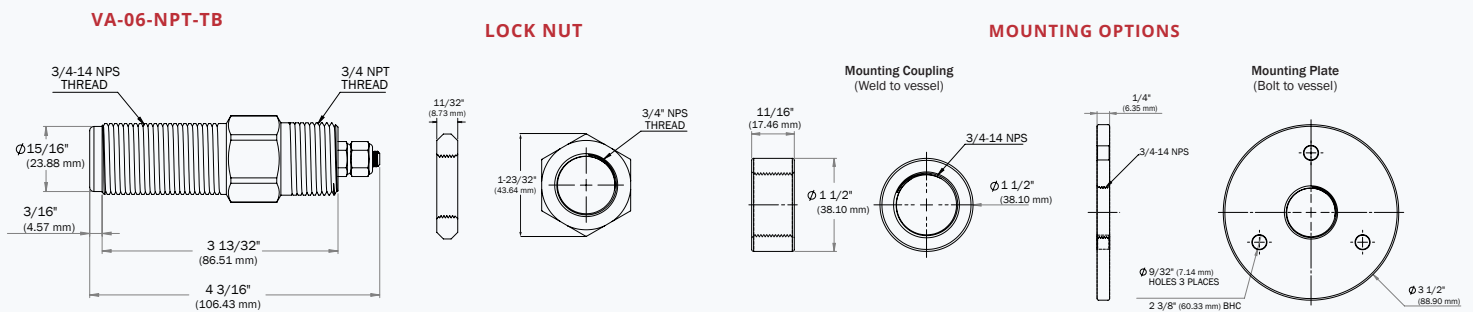
Wasted Cocoa and Flax

# THE SOLUTION

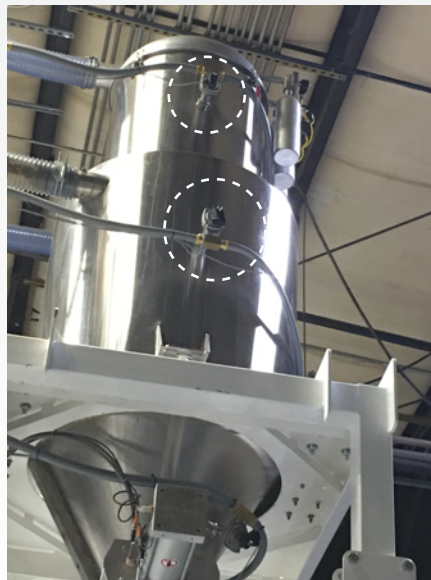
## SMALL BUT POWERFUL

The company contacted Control Concepts 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 ¾" nozzle could activate up to three feet of material. **These were positioned in pairs at the top, center and bottom of the hopper to guarantee continuous flow, and eliminate product caking.**

## MODEL VA-06 DIMENSIONAL DIAGRAM



*AirSweep® System Installed on Flax Hopper*



*Closer Look*

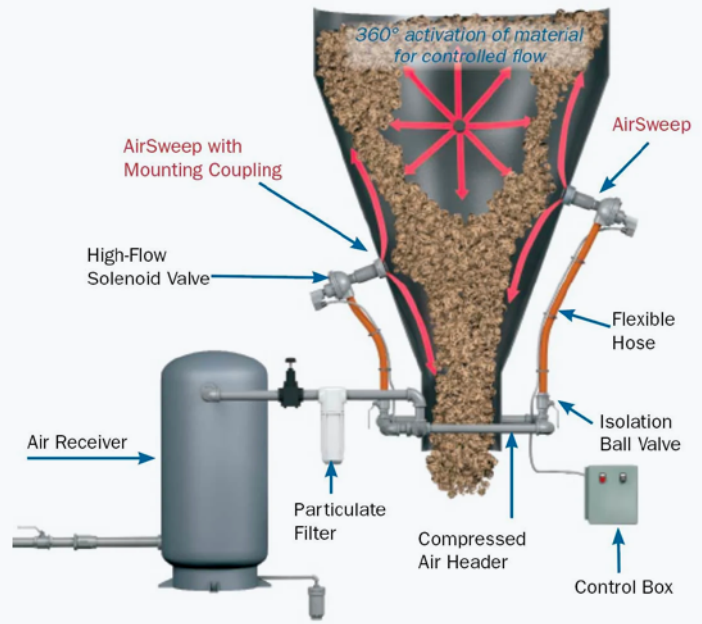


*A Satisfied Client: Stanley Rhea  
Head of Maintenance Department*



## 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 pre-set sequence when material is to be discharged from the bin.
4. A typical system will consist of 3 or 4 AirSweep® nozzles, high-flow solenoid valves, sequence timer/controller, air filter, regulator, air receiver, flex hoses and ball valves.



## THE RESULT

### EXCEEDING EXPECTATIONS AT EVERY STEP

"We have been very successful with Airsweep®," said Rhea. **It has solved 90% of their material retention problems.** Aside 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 their customer experience. Added Rhea: *"Customer service has been very helpful. 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!"*

## MORE INFORMATION

[AirSweep® vs. Vibrators](#)

[AirSweep® vs. Fluidizers](#)



*Control Concepts, Inc. provides a 7-year warranty on the AirSweep® unit.*

## OUR CLIENTS IN THIS INDUSTRY INCLUDE



## AIRSWEEP® IS USED BY MORE THAN HALF OF S&P 500 COMPANIES

*Contact us for a custom engineered AirSweep solution*

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