



MATERIAL ACTIVATION SYSTEMS

## CLEARED FOR TAKE-OFF

### An aviation services company gets perfect material flow—and first-class customer service

The Federal Aviation Administration (FAA) requires airlines and airports that operate during icy conditions to perform deicing and anti-icing of aircraft and airfield pavement. Frozen deposits can lead to loss of control, engine flameout, and other accidents. An aviation services company that helps to deice gates, ramps, and other critical equipment for over a hundred airports across the United States had to clear their material blocks, before they could clear the runway.

### PROBLEM

The company blended salt with binder and other additives to make pellets, which were irregularly shaped to prevent them from rolling or blowing off the runways. Unfortunately, many materials used in deicing formulas are hygroscopic, and have a tendency to clump and harden.



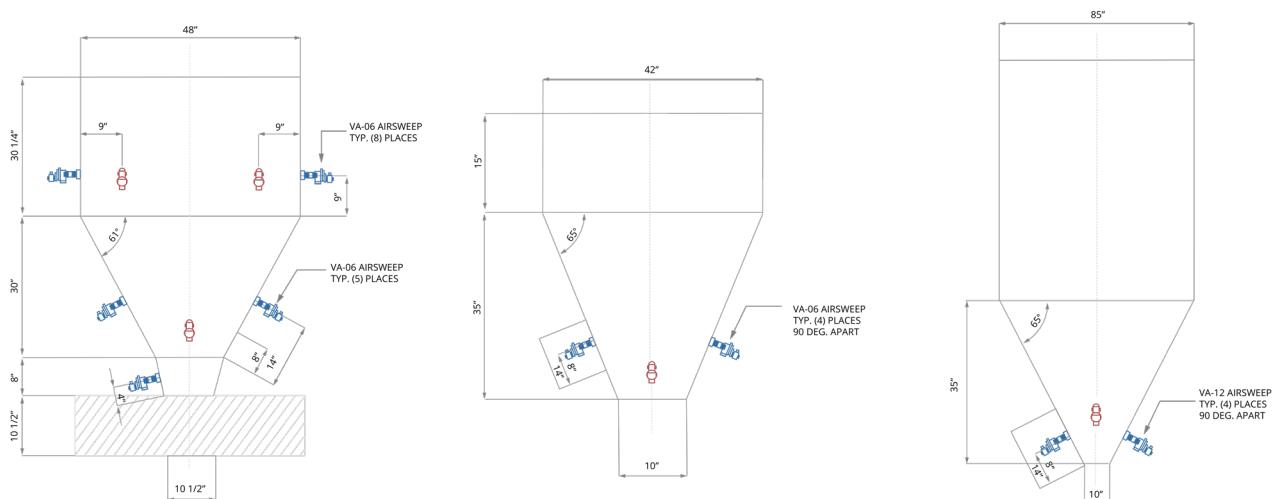
The company's process engineer suggested vibrators. But after the maintenance supervisor saw its description of "gentle vibration," he knew it wouldn't work.

*"We needed something more...violent,"  
said the company's CEO.*

## SOLUTION

The aviation services company searched online and upon watching the video of the AirSweep® material flow aid system, knew it was exactly what they were looking for. AirSweep® engineers customized a solution that took into account their process, size, and angle of the vessels. This included:

- **Two PM surge welded bins:** Two VA-06 units placed at the upper half of the vessel, two VA-06 units in the center, and one VA-06 unit above the discharge
- **Four minor welded bins:** Four VA-06 units placed 90 degrees apart above the discharge
- **Acetone bins:** Four VA-06 units placed 90 degrees apart
- **Receiving bins:** Four VA-06 units placed 90 degrees apart
- **Baghouse:** Four VA-12 units placed 90 degrees apart
- **Cyclone:** Four VA-06 units placed 180 degrees apart



AirSweep diagrams for the welded bins, receiving bins, and baghouse

## RESULTS

"AirSweep has made a 100% difference to our materials flowing," the aviation services CEO said. They are getting more units to install in their other business areas, where they serve other airlines—including the biggest carriers and package delivery services.

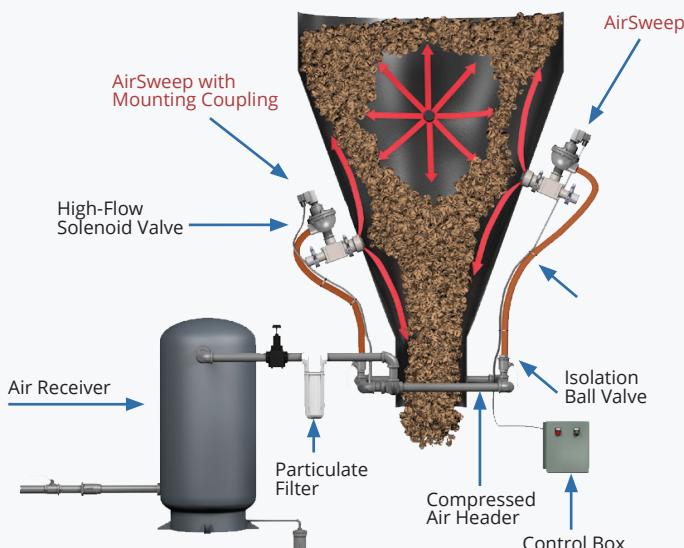
They're also happy with the "first-class" customer service they've received. "From the very beginning, the Control Concepts team has been very responsive. Every quote is accurate, and I never have to ask 'where is my stuff?' Because if I'm calling a company for an update, I'm already mad," said the CEO.

**"Finally, we've found a company on the same level of service as us.**

**With Control Concepts and AirSweep, there's no headaches or bad surprises."**

## 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 three or four AirSweep® nozzles, high-flow solenoid valves, sequence timer/controller, air filter, regulator, air receiver, flex hoses, and ball valves.



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

## MORE INFORMATION

### AIRSWEEP VA-06



[AIRSWEEP VA-06 KAOLIN MATERIAL FLOW TEST](#)

[AIRSWEEP VA-06 DIMENSIONAL DIAGRAM](#)

[AIRSWEEP VA-06 PRODUCT SHEET \(PDF\)](#)

### AIRSWEEP VA-12



[AIRSWEEP VA-12 DEMONSTRATION OF CLEANING POWDERED MATERIAL](#)

[AIRSWEEP VA-12 DIMENSIONAL DIAGRAM](#)

[AIRSWEEP VA-12 PRODUCT SHEET \(PDF\)](#)

## CONTACT US FOR A CUSTOM ENGINEERED SOLUTION

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