

## **KWS Problem Solvers**



Columbia River Carbonates Provides High-Grade Calcium Carbonate to Many Industries

## Vented Buckets for Better Bulk Material Discharge

### **General Description**

Columbia River Carbonates supplies high-grade ultra-fine ground calcium carbonate products to many industries throughout the Northwestern US and Western Canada. Calcium carbonate is a mineral produced from pure white limestone. The paper industry uses calcium carbonate as a whitener and filler for paper, improving brightness and smoothness. The glass-making process requires high purity calcium carbonate for both bottles and flat glass. Calcium carbonate is also used for making paint, concrete, PVC piping, and roofing shingles.

### **Design Parameters**

Product Type: Calcium Carbonate

Material Density: 50 to 90 Pounds per Cubic Foot

Capacity: 1,000 Cubic Feet per Hour

**Duty:** 20 Hours a Day

## **KWS Advantages**

An existing bucket elevator at Columbia River Carbonates was having issues with calcium carbonate not properly discharging from the buckets. Calcium carbonate is an ultra-fine material with a similar texture to baby powder. After getting a good understanding of the problem, KWS determined that the fineness of the material was causing a suction effect within the buckets. KWS recommended the use of vented buckets to allow air to escape out of the bottom of the buckets and eliminate the suction that was keeping the material in the bucket.

## **KWS Special Features**

After reviewing the application with the maintenance crew, KWS determined the root cause of the discharge problem quickly. The buckets were retrofitted in the field with the optimal hole diameter, hole location, and number of holes necessary for the material to discharge correctly. Although a simple solution, the application and industry expertise provided by KWS solved the problem without Columbia River Carbonates incurring additional expense or downtime.

#### **Testimonial**

Domonic Min, Maintenance Supervisor – Columbia River Carbonates

"Thank you to KWS for the solution to our bucket suctioning problem. We are now getting the proper flow rate from this bucket elevator and hitting our production numbers again."



### **KWS Manufacturing**

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www.kwsmfg.com



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Vented Buckets Allow Air to Escape for Full Material Discharge



Calcium Carbonate was Ultra-Fine and Causing a Suction Effect in Buckets



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