CLEVELAND VIBRATOR COMPANY

clevelandvibrator.com
4544 Hinckley Industrial Parkway
Cleveland, OH 44109

216-241-7157
800-221-3298
Fax 216-241-3480

APPLICATION REPORT : FOOD AND AGRICULTURE INDUSTRY

# Kalmbach Feeds Counts on VMSAC Air-Cushioned Piston Vibrators to Free Up Product Flow and Reduce Bin Damage.

"Most of the vibrators only run for 5 or 7 seconds. We are using less power and getting better results with the high impact vibrators."

- Tim Hoag, Maintenance Technician
Kalmbach Feeds

## CHALLENGE

The latest state-of-the-art facility at Kalmbach Feeds is called the MPK Complex. This facility is home to a wealth of animal feed processing equipment, including a network of hopper bins holding up to 40 tons each of granular feed. Moving feed efficiently out of the hoppers and limiting damage to the exterior walls required Kalmbach to seek out a new supplier. Its former vibrators were tearing the bins apart and not vibrating hard enough to move the product.

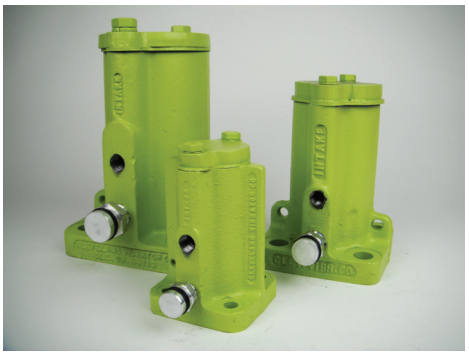
## SOLUTION

The installation of VMSAC 1200 Air-Cushioned Piston Vibrators from Cleveland Vibratory Company was the answer to a 'sticky' situation. After a trial period, Kalmbach purchased more than a dozen VMSAC 1200 coated vibrators for use in the MPK Complex. Super Blue coating was applied to the vibrators because it has the lowest co-efficient of friction between the piston and body bore.

## FEATURED PRODUCT

VMSAC 1200 Air-Cushioned Piston Vibrators

## SPECS



- Piston weight: 2.5 lbs (1.14 kg) ; overall weight: 16 lbs (7 kg)
- 2" (5.1 cm) piston diameter
- Frequency: 2600 VPM @ 60 psi; 4.1 bar
- Air consumption: 11 cfm; 311 lpm; @ 60 psi; 4.1 bar

# Kalmbach Feeds Counts on VMSAC Air-Cushioned Piston Vibrators to Free Up Product Flow and Reduce Bin Damage.

Kalmbach Feeds was founded in 1963 by Milton and Ruth Kalmbach who shared a vision of a new way of doing business. Their goal was to design quality feed products, manufacture those products with the highest quality control procedures in the most efficient facility, and provide the product to the customer at the best possible value.

Computer-controlled mixing and pelleting systems, patented technologies and Kalmbach's manufacturing expertise all contribute to the company's growth. Capital improvements include its salmonella-free product line and new art textured feed system with separate lines for medicated and non-medicated feeds. The latest state-of-the-art facility called the MPK Complex is home to a wealth of animal feed processing equipment, including a network of hopper bins holding up to 40 tons each of granular feed. Moving feed efficiently out of the hoppers and limiting damage to the exterior walls requires the use of VMSAC 1200 Air-Cushioned Piston Vibrators from Cleveland Vibratory Company.

The company is in the middle of yet another expansion because of greater demand for the high-quality animal feed. When opened in the fall of 2014, the expanded facility will contain more units from Cleveland Vibrator, including 11 Model 1200 VMS Impact kits and eight Model 1300 VMS Impact Kits. The kits include mounting channels, safety cables, hoses, valves and filter-regulator-lubricators.

Moving feed efficiently out of the hoppers and limiting damage to the exterior walls requires the use of VMSAC 1200 Air-Cushioned Piston Vibrators from CVC.

## VMSAC VIBRATORS HANDLE 'STICKY' SITUATION

"We were initially using several different kinds of vibrators to free up product flow from the ingredient bins, but they were tearing the bins apart and not vibrating hard enough to move the product," recalls Tim Hoag, long-time maintenance technician for Kalmbach Feeds. "I figured there was a better way and did some research on high impact vibrators. That's when we contacted Cleveland Vibrator, and they brought out more information and samples we could test."

After the trial period, Kalmbach purchased more than a dozen VMSAC 1200 coated vibrators during 2013 for use in the MPK Complex. Super Blue coating was applied to the vibrators because it has the lowest co-efficient of friction between the piston and body bore. The coating will not be washed out if lubrication used and is rated to 500°. The VMSAC 1200 has a 2" (5.1 cm) piston diameter and maximum frequency of 2,600 vibrations per minute (60 psig 4.1 bar).

"Some of the ingredients we produce are coated with fat or vegetable oil and tend to be sticky. Even some of our dry ingredients do not start flowing easily," says Hoag. "Each bin holds 40 tons and with that much weight on top, everything compacts in the bottom so it has to be dislodged to flow freely."

## NO DAMAGE TO BIN WALLS

According to Hoag, the VMSAC vibrators were mounted in a different position to reduce bin damage and increase product flow, solving two problems the company experienced with its older vibrators. "We had our previous vibrators attached to the side of the hoppers, but the impact was damaging the walls and actually cracking them," he says.

"The vibrators from Cleveland Vibrator are now mounted to the framing members so the entire hopper gets the full impact of vibration, not just the side wall," he observes. "Most of the vibrators only run for 5 or 7 seconds and some run for 15 or 20 seconds if the product is really sticky. We are using less power and getting better results with the high impact vibrators."

## ABOUT THE CLEVELAND VIBRATOR COMPANY

The Cleveland Vibrator Company has been driving innovations in materials handling since 1923. From our corporate headquarters in Cleveland, Ohio, and in partnership with HK Technologies located in Salem, Ohio, we've met the challenges of more than 15,000 customers all around the globe in a vast array of industries. Our comprehensive product line includes air-piston, rotary electric, electromagnetic, turbine and ball vibrators, as well as a wide variety of fabricated feeders, vibratory screeners, ultrasonic screeners, vibratory conveyers and vibratory tables used for light, medium and heavy-duty industrial applications.