

APPLICATION REPORT : FOOD AND AGRICULTURE INDUSTRY

Cattle Empire depends on Turbomite CVT-80 Bolt Bite Vibrators



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- Nick Chesnut, Operations Manager
Cattle Empire, LLC

CHALLENGE

Nestled within the American heartland, Satanta, Kansas based Cattle Empire, LLC thrives in the time-honored tradition for caring for feeder cattle. The organization’s owners and employees have a life passion for feeding cattle to finish. With more than 230,000 cattle to feed every day of the year, this family-owned company stakes its reputation on the steadfast ability to provide the abundance of fresh quality grain and related feedstock that is required to prepare a nutritious diet. With trucks arriving with hundreds of thousands of pounds of corn and other products daily, a solution was needed to minimize truck unloading and manpower time to, in turn, enable goods to reach feed mill operations quicker.



FEATURED PRODUCT

Turbomite CVT-80 Bolt Bite Vibrator

SPECS



SOLUTION

With Turbomite CVT-80 Bolt Bite pneumatic turbine vibrators from Cleveland Vibrator Company, Cattle Empire has significantly improved freight receiving time and saved on manpower. CVT-80 units have an adjustable mounting bracket that, with a trucker’s approval, attaches quickly and simply to a truck trailer knock rail to deliver the force outputs needed to ensure that the stickiest contents unload easily during the hottest seasonal temperatures of the year.

- Pneumatic turbine vibrator
- At 80 psi, 5.4 bar: Force 579.4 lbf (2,572.5 N); Frequency 10,255 VPM; Air consumption 5.2 cfm, 147.9 lpm
- 5-3/8" W x 3-1/2" H (13.7 cm W x 8.9 cm H); With mounting unit: 8-3/16" W x 5" H (20.79 cm W x 12.7 cm H)
- 2.50 lbs. (1.13 kg); With mounting unit: 11 lbs. (4.98 kg)

Cattle Empire depends on Turbomite CVT-80 Bolt Bite Vibrators

At four o'clock in the morning the feed mills of Cattle Empire have already received the first of a long line of livestock feed trucks to unload.

"The ability to blend the freshest, highest quality ingredients into our feeding programs on an ongoing basis relies on our ability to receive them in a timely manner," explained Operations Manager Nick Chesnut. "Truck trailers hold 50,000 pounds. We get about 50 to 60 semis delivering goods per day, and they arrive from all over the country with corn and related products."



Turbomite CVT-80 Bolt Bite vibrators improve feed unloading time by 75%, accelerating delivery to Cattle Empire and service to 230,000 cattle daily.

TURBOMITE REDUCES UNLOADING TIME BY 75 PERCENT

Previously, Cattle Empire sometimes took two to three hours to unload a single truck trailer. For trucks travelling from 600 miles away, materials often get packed down in the trailer due to the vibration that occurs when driving over time and distance. Products higher in moisture, such as dried distillers grains, present further bridging or dispensing challenges. In the summer or months with higher average temperatures and humidity, trailer contents have a tendency to get stickier.

"We would have three guys taking two and a half hours, a total of 7.5 man hours, to unload 50,000 lbs of product. With the need to bring ingredients into our feed mill from a number of trucks waiting in line, my teams were overextended," said Chesnut. "With trucks that can withstand the impact of an industrial vibrator and where we have a trucker's approval to attach the Turbomite CVT-80 to a trailer, we have cut freight unloading and associated manpower time by more than 75 percent, at a 30 minute average unload time per truck."

POWERFUL, IMPACTFUL RESULTS FROM A COMPACT PRODUCT

The Turbomite CVT-80 Bolt Bite Vibrator weighs only 2.5 lbs (1.13 kg) yet delivers the powerful force outputs to dislodge trailer contents quickly and easily.

With the Turbomite CVT-80 Bolt Bite vibrators at all four of their feed receiving locations, Cattle Empire staff members no longer have to manually take a hammer to the trailer bump rail to create the vibratory force to keep trailer contents moving. The product comes complete with an adjustable mounting bracket and can attach to start and run at low air pressure at any angle. Turbomite CVT industrial vibrators generate up to four times the force with less air consumption than competitive models. These pneumatic products have tough ductile steel bodies with enclosed parts that require no lubrication, for safe, virtually maintenance free and long-lasting operation. Additional features include optimal weight and force to air-consumption ratios at low noise levels. "It may not be a silver bullet, but the Cleveland Vibrator Turbomite CVT-80 Bolt Bite product is definitely a stainless steel bullet, and one that our operations could not do without," commented Chesnut.

ENGINEERED A NEW PRODUCT FOR THE APPLICATION

The notion of finding a portable vibrator that could attach to any truck trailer that pulled into their feedlots originated with one of Cattle Empire's owners. Word of mouth references brought the beef feeding corporation to Cleveland Vibrator Company where the ideal industrial vibrator product was stocked, and a custom "bolt bite" mounting bracket was engineered to enable quick attachment and detachment from hammer or bump rails on the truck trailers.

"The engineering background at Cleveland Vibrator Company is superlative," claimed Chesnut.

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.