

# Cold Storage Company Saves Hundreds of Thousands of Dollars through Expert Vibration Analysis

## RESULTS

- \$200,000 compressor saved from catastrophic failure
- Cooling capacity at critical warehouse saved from danger
- Compressor manufacturer improves quality control at assembly plant



## APPLICATION

Poultry processing and cold storage shipping facility using 400 horsepower anhydrous ammonia rotary screw compressor chiller.

## CUSTOMER

100+ employee frozen poultry warehouse with blast freezing and storage facilities

## CHALLENGE

An Emerson vibration analyst had been following the deterioration of the bearings on a very large and critical compressor. Regular reports were made to the management of the facility. The machine finally failed and a replacement compressor was ordered and installed.

After less than 100 hours of operation, the analyst discovered the identical problem using patented CSI Peakvue® technology on the new compressor. High "g" ratings showed this brand new machine had a problem on the cage around the bearings.

The management of the cold storage company did not want to believe it, but a brief explanation of CSI Peakvue technology and a display of monitoring results finally convinced them that the brand new \$200,000 compressor was faulty and in danger of failing during the hot summer months when cooling capacity is most critical.

*"Accurate vibration analysis saved a machine at the most critical time of the year."*

Emerson Service Analyst

### SOLUTION

The supplier of the compressor didn't want to believe that a brand new product was on a rapid trend toward catastrophic failure and sent an engineer to the site. After a brief discussion with the Emerson vibration analyst on the value of vibration monitoring and the capabilities of AMS™ Suite: Machinery Health™ Manager software, the engineer was convinced to remove the cover and visually inspect the bearings. The new bearings from the supplier were discovered to be badly scored. The poor condition of the new machine parts confirmed the value of Emerson's vibration analysis technology and service capabilities.

As a result of the findings, the compressor manufacturer now delivers higher quality machinery to his customers, catastrophic failure of a \$200,000 compressor was avoided during the most temperature critical period of the year, and tons of frozen food products were kept in excellent frozen condition and ready for shipment.

*"The management thinks we're magicians."*

Emerson Service Analyst

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