

Manufacturing Inc.

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CASE STUDY

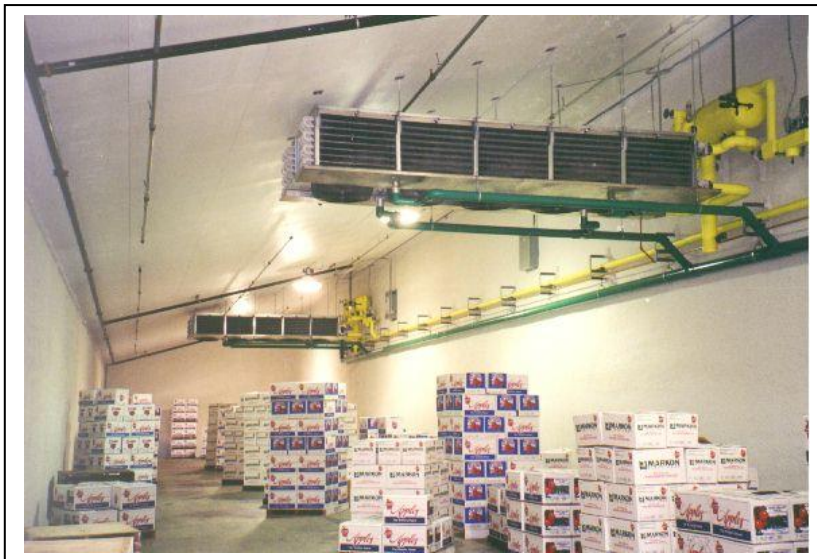
- PRODUCT:** COLMAC LV INDUSTRIAL AIR COOLER
- APPLICATION:** MED TEMPERATURE (32°F) PACKED FRUIT STORAGE
- FACILITY:** PACKED FRUIT HANDLING AND STORAGE FACILITY FOR APPLES
- (QTY) X MODEL:** (2) X LV12-456X-G-24-3/4-FLA-W-D
- SPECIFICATIONS:** **22.4 Tons Capacity**, 32F Room, 12F TD
Gravity Flooded Ammonia
30,750 CFM Airflow
Water Defrost
1" x 0.065 Aluminum Tubes, 6 Rows Deep
0.010" Aluminum Fins, 4 per Inch
5 x 3/4 Hp, 1140 rpm, Aluminum Fans
60 sq ft Face Area, 7,029 sq ft Total Surface Area
2,540 lbs Operating Weight
Overall Dimensions: 33" H x 74" W x 200" L

DESCRIPTION:

Much of the apple crop grown in the Pacific Northwest of the United States is stored in **Controlled Atmosphere (CA)** refrigerated warehouses. **Colmac** has successfully developed specialized industrial ammonia refrigeration air coolers which are **widely used** in the CA fruit storage industry.

A large refrigerated **apple storage and packing** facility was constructed with 22,000 square feet of CA storage, 8,000 square feet of common storage, and 3,000 square feet of packed fruit handling and storage. **Colmac** air coolers were **specified** for the entire facility.

Colmac LV (Low Velocity) coolers were installed in the packed fruit handling and storage room



because of **limited headroom**, low noise, and low air velocity requirements. **Installed cost** of the 2 x LV12 coolers turned out to be substantially **lower** than the 4 x ICL units originally proposed due to lower first cost, and lower installation costs (fewer vessels and less piping).

Optional **Variable Frequency Drive (VFD)** compatible **motors** were provided on all the Colmac coolers. Control of fan motor speed is accomplished through the computerized building automation system in response to room loads.