

Distribution Center



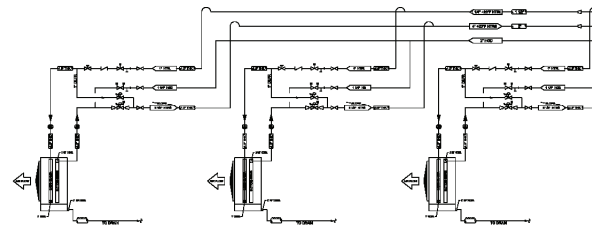
C&L Refrigeration Designs Ammonia Refrigeration System for Fontana, CA Distribution Center

Exciting things are happening in the C&L engineering and construction department! C&L recently completed an environmentally friendly and energy efficient design/build industrial ammonia refrigeration system for a new 570,000 sq. ft. distribution center in Fontana, California.

The project has over 140,000 sq ft of 34°F-36°F refrigerated area with cheese storage and repack, and a main 136,000 sq. ft. refrigerated warehouse space with fifteen 30 feet high continuous aisles that are each 360 ft. long (longer than a full length football field). There is also approximately 149,000 sq. ft. of 65°F conditioned area for chocolate storage, and 223,000 sq. ft. of dry storage.

Sustainability - The environmentally friendly ammonia refrigerant was selected for the refrigeration system with sustainability in mind, and compliments the many environmentally friendly and organic products that C&L's client sells at their neighborhood stores.

Energy Efficiency - The refrigeration system includes key energy efficiency measures such as VFD on the lead compressor and condenser fans, premium efficiency motors, floating head pressure based on ambient wet-bulb temperature, floating suction pressure controls, and high-efficiency air units that utilize minimum fan input power. Other key energy efficiency measures include increased wall and roof insulation R values, and motor sensors for lighting controls. By implementing these multiple energy efficiency measures, it has helped C&L's client obtain a



QUICK FACTS

- New 570,000 sq. ft distribution center
- Sustainability in mind with ammonia refrigerant
- Multiple Energy Efficiency Measures implemented
- Variable Frequency Drives on compressor
- High level of Safety
- Stainless steel evaporators
- State-of-the-art control system
- Corrosion resistant coating prior to pipe insulation



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Savings By Design (SBD) potential incentive of over \$300,000 from the utility company.

Safety First – There were many safety considerations built into this construction project. The locations of the air units are away from the racking system and the refrigerant piping is located on the roof to minimize the risk of being hit. Stainless steel evaporators were used for longevity and corrosion resistant coating was applied on the refrigerant piping prior to insulation to minimize corrosion. A state-of-the-art Quell™ fire suppression system that does not rely on in-rack components and anti-freeze was installed over conventional systems. Everyone’s commitment to safety was shown throughout the project.

The engineering and construction team overcame many challenges along the way, such as the short project schedule, the necessity for all equipment to be inside, and the massive amounts of pipe (over 2,500 ft.) that needed to be installed and welded on a rooftop with daily temperatures over 100 degrees. We are proud to be part of the team to design and construct this distribution center for our client and allow them to continue to provide new and unique grocery products at their local neighborhood stores.



About C&L Refrigeration

C&L Refrigeration has provided high-quality maintenance, engineering and construction service in the commercial and industrial air conditioning and refrigeration industry since 1978. In addition, C&L assists clients with air Conditioning needs and in meeting EPA, AQMD and OSHA compliance standards. A family-owned business, C&L strives to encourage its 175 employees to take pride in their performance, understand each customer’s needs and customize projects to meet those needs. With headquarters in Brea, CA and a branch office in Las Vegas, NV, C&L Refrigeration is strategically located to responsively serve all of California and Southern Nevada.



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