



CASE STUDY

LARGEST TRANS-CRITICAL CO₂ REFRIGERATION SYSTEM IN NORTH AMERICA

Yosemite Foods Inc., in Modesto, CA, has been providing the highest quality specialty pork products to a diverse array of niche markets across the West Coast for over 30 years. Yosemite Meats approached Refrigeration Solutions, LLC (RSI), a CoolSys Company, to see if they could help them achieve a unique set of refrigeration and energy reduction goals for their new hog processing plant in Stockton, CA.



The Yosemite Foods Facility was designed to process 550,000 lbs. daily in 116,000 square feet of processing space, 95,000 square feet of which is comprised of refrigerated areas. After presenting and considering several options, RSI was contracted to provide a turnkey solution which included engineering, design, equipment selection and procurement, and installation for this project.

PROJECT OBJECTIVES

- Must be energy efficient, using “best-in-class” equipment
- Must be safe; safety is paramount
- Must be environmentally friendly
- Must be able to reclaim heat; this is critical in the operation
- Must be cost effective: initial purchase price of equipment along with cost of ownership with regards to maintenance, service, and energy consumption



RESULTS

RSI met the challenge and was able to satisfy all objectives put forth by Yosemite Foods, Inc. Utilizing RSI’s capabilities along with technical know-how from partners CRS of South Africa, and Danfoss, the facility’s refrigeration system now includes the largest trans-critical CO₂ refrigeration system in North America with a total of five compressor racks running 2,450 horsepower and 22.5 million BTUs/hour. This approach eliminated the need for an ammonia over CO₂ system, satisfying the customer’s desire of using non-corrosive substances. Discharged heat from the compressors is reclaimed and redirected to generate hot water more efficiently, which is a critical requirement for the meat processing operation.

FOR MORE INFORMATION
ON NATURAL REFRIGERANT
PROJECTS AND SOLUTIONS,
PLEASE CONTACT:

BRYAN BEITLER,
VP of Engineering

email: bbeitler@coolsys.com

phone: 714-510-9632