

Chobani Yogurt TWIN FALLS, IDAHO



VALUE DELIVERED

As the largest yogurt plant in the world, Chobani's facility occupies nearly one million square feet of space, has 14 production lines, and can process 11 million pounds of milk per day. From site clearing to product trials on the first two production lines, the project was hyper tracked in 10 months. Peaking at 1,000 construction workers all working six days a week in two 10-hour shifts, the project was completed in record time.

CLIENT OBJECTIVES

Chobani, Inc., producer of America's number one yogurt, selected Shambaugh & Son as their single-source Design/Build "self-perform" partner for its "fast tracked" new Greenfield Greek yogurt plant. The plant was designed with a major focus on efficiency and cost effective process, as well as designing infrastructure for future expansion opportunities.

SCOPE OF SERVICES

Shambaugh & Son, L.P. acted as the prime Design/Build partner for all building and site infrastructure, as well as self-performing mechanical, electrical, ammonia refrigeration, fire protection, and utility piping systems to service the plant.

Scope details include:

- Twenty-six 18°F propylene glycol unit evaporators
- 400,000-gallon domestic water use tank with plant-wide booster system
- Thirty-five indoor process AHU's delivering 910,000 cfm of air-conditioned air (24% OA) to nineteen processing rooms
- Five 800hp high pressure steam boilers producing 124,200 pounds per hour of 125 psig steam with expansion to 10-800hp boilers and 248,400 pounds per hour

Shambaugh & Son An EMCOR Company

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MANUFACTURING/INDUSTRIAL

FOOD PROCESSING

OPERATING COMPANY:

Shambaugh & Son

CLIENT:

Chobani, Inc.

DESIGN/BUILDER:

Shambaugh & Son

ARCHITECT:

MSKTD & Associates, Inc.

ENGINEER:

Shambaugh & Son

PROJECT DURATION:

January 2012 -October 2012

PROJECT VALUE:

\$450 million

TECHNICAL SOLUTIONS
Relationships
Quality Service
VALUE ENGINEERING
Experience
Project Schedule & Coordination
EXPERTISE

\checkmark	Design/	Build/
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✓ New Construction

▼ Fire Protection

✓ Electrical Construction

Mechanical Construction

Facilities Services

✓ Refrigeration

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SCOPE OF SERVICES (contd.)

- Four variable speed 1,050 ton packaged ammonia chillers producing 34°F chilled water, with expansion to eight 1,050 ton chillers
- Two variable speed 800 ton packaged ammonia chillers producing 18°F 30% propylene glycol, with expansion to three 800 ton chillers
- 200,000 gallon waste water equalization and neutralizaton system
- 24" CPVC process waste system and lift station designed for peak flows up to 8,700 gpm
- Installation of fourteen electrical services to supply 34 MW of connected power
- Installation of an open cable and bus duct design to distribute power throughout the facility
- Eight K-25 ESFR glycol sprinkler systems for cooler and warehouse areas
- Three K-25 ESFR wet sprinkler systems for the ambient warehouse areas
- Seven Ordinary Hazard Group 2 sprinkler systems designed for up to 4 levels

SOLUTIONS

Efficient use of energy and water resources was a focal point throughout the engineering design process:

- All boilers include stack economizers and parallel positioning O2 trim controls to optimize operating efficiency
- Centralized master boiler control to optimize boiler sequencing/staging
- Reverse Osmosis (RO) boiler make-up system to minimize water waste, chemical usage and blowdown heat losses
- Installation of LED lighting in warehousing, cooler facility support and parking areas to reduce the lighting power consumption without sacrificing overall illumination levels
- Includes waste pretreatment with capture capability for any unexpected upset of product. A water and heat reclaim system is incorporated to reuse in the plant.
- Clean, walkable panel ceilings allow maintenance staff to work up above the process, without interruption or contamination to the process floor.
- Plant was designed to be expanded in nearly every direction; utilities were sized for the plant to double in size.

BACKGROUND

In 2005, Chobani Yogurt founder and CEO, Hamdi Ulukaya, purchased a recently closed yogurt plant and went to work on perfecting the recipe for Chobani based on his belief that everyone deserves access to delicious, high-quality yogurt. The first cup of Chobani yogurt hit the shelves 18 months later. In October 2012, Chobani opened the largest yogurt plant in the world!

