Candy Manufacturer Cleans Peanut Roaster
16 Times Faster Saving US$30,000 per Year

Problem:
A large candy manufacturer needed a faster, more economical method to clean and sanitize its tunnel-style peanut roaster. The inside walls of the 40 foot (12 m) long roaster and the open link conveyor belt that carries the peanuts required biweekly cleaning. The cleaning process took two workers with handheld spray guns an entire eight-hour shift to complete. In addition to the large labor expense, this cleaning method used too much water. The variability of results and the potential for biological contamination were also areas of concern.

Solution:
Spraying Systems Co. solved the problems using 36 TankJet® spray balls to quickly clean and sanitize the roaster while using only a fraction of the water. The TankJet 63225-3A spray balls provide 180° coverage and are installed above and below the conveyor to ensure complete cleaning of the conveyor and interior surfaces.

The system is plumbed to water and sanitizer lines and is set up in four zones, each 10 feet (3 m) long, to accommodate the manufacturer's pump and plumbing capacities. Each zone has four spray balls above the conveyor and four below. Using an existing pump and modifying existing plumbing reduced the capital outlay required for the new system.

A single worker now initiates and monitors the cleaning operation while performing other tasks. Beginning with the four upper spray balls in one zone, timers cycle through the washing, sanitizing and rinsing process. Each cleaning cycle takes just 2-1/2 minutes, then switch to the lower spray balls.
Results:
The TankJet® spray ball installation has cut the cleaning and sanitizing time dramatically. With actual spraying time now less than 30 minutes, the roaster cleaning operation is accomplished by one person in less than an hour.

Water consumption has been reduced by two thirds, saving about 130,000 gallons (492,000 liters) per year. The volume of sanitizer being used has also been greatly reduced. The estimated payback period for the switch to an automated roaster cleaning system was four months.

The repeatability of the TankJet cleaning and sanitizing operation has enabled the manufacturer to clearly document its cleaning procedures. The significant reduction in the use of both water and sanitizer also enhances the company’s ongoing efforts to operate more sustainably.

A CLOSER LOOK AT THE SYSTEM

63225-3A sanitary spray balls
- Polished 32Ra interior and exterior surface finish
- Threadless and self-draining design prevents build-up
- 316L stainless steel construction permits use of a wide array of chemicals
- Suitable for CIP – no moving parts
- Capable of withstanding high temperatures up to 400°F (204°C)
- Ideal for food processing applications