

CASE STUDY

LUBSOIL® SYNTHETIC FOOD GRADE SPIRAL FREEZER CHAIN LUBRICANT SFCL (5267)

Food Processing Plant – United States

APPLICATION

Chain drive in a Frigoscandia freezer operating at -50°F.

CHALLENGES

The client was operating a Frigoscandia freezer at -50°F for 20 hours a day. During the 4 hours of down time, the freezer chain was washed down with high-pressure water, soap and a sanitizer. After the CIP (Clean in Place) process was completed, an aerosol chain lubricant was sprayed onto the 60 feet of 4-inch carbon steel chain for one complete revolution of the chain. This process was repeated daily after every CIP. The spray lubricant was manually applied and overspray did occur, resulting in lubricant dripping on the floor.

ACTIONS TAKEN

A Tulco Lubrication Engineer consulted with an engineering services company to develop a freezer auto-lube system and chain lubricant. The engineering services company designed a wash down-proof lubrication system that operates on a daily basis after the freezer drying cycle is complete. The system utilizes an external wall mount unit with a convenient refillable reservoir of lubricant. The system allows for daily lubrication of the freezer chain without maintenance team members entering the freezer.

TULCO OILS LUBSOIL® SOLUTION

The Tulco R&D team developed a Synthetic ISO 22 viscosity fluid that could handle the extreme temperature ranges inside the freezer, -50°F to 70°F. The lubricant includes a tackifier that allows the fluid to remain on the chain with no drip. Extreme pressure and anti-wear additives ensure that proper lubrication of the chain is achieved. The SFCL is H-I food grade rated and Kosher certified to adhere to the safety standards of any food processing plant.

RESULTS

With the auto-lube system applying Lubsoil Synthetic FG SFCL to the chain, the need to manually spray the chain daily was eliminated. Lubricant could now be purchased in 5-gallon pails or 55-gallon drums rather than costly 15 oz. spray cans, reducing costs. Maintenance personnel no longer needed to enter the freezer daily to lubricate the chain. Instead, they only needed to check the lubricant reservoir on the auto-lube system weekly and refill as needed, greatly reducing man-hours. With no overspray or dripping of lubricant on the floor the safety issues were eliminated.



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