

FCJ Composite Bearings Boost Frozen Food Production

■ A partnership with TriStar gives you a competitive edge.



Self-lubricating bearings resist sub-zero temperatures

With a clear focus on convenience, consumers are increasingly demanding quick, prepared frozen meals. And food manufacturers are paying attention, as they follow the lead of the automotive industry in incorporating high-efficiency robots to boost production rates.

While robots add speed to the line, the sub-zero temperatures required of frozen food manufacturing places undue stress on metal ball bearings yet the environment has no impact on FCJ self-lubricating bearings.

The Challenge

A leading food service company approached us when their packaging and palletizing [robotic arms](#) continually seized in the sub-zero production environment. The robots' lubricated rolling element bearings would seize as they absorbed moisture from the frozen goods. With each bearing failure, workers were required to halt production and manually apply expensive food-grade grease. This caused a domino effect on plant efficiencies and lowered profits.

The Results

TriStar engineers recommended [FCJ self-lubricating bearings](#) for their thermal stability and resistance to moisture in wet environments. A reinforced resin with a Rulon[®] F tape liner, FCJ bearings are self-lubricating and resist cold temperatures. In fact, the material is more stable than any surrounding stainless hardware. Since switching to FCJ bearings, our client has reported zero maintenance issues in nearly two years of continuous use.

FCJ composite bearings self-lubricate, resist sub-zero temperatures to boost frozen food production.

Need help determining the right bearing for your specific application?

Visit www.tstar.com/ask-the-experts

We're ready to put our engineering expertise to work for you from prototype to production.

Engineering | Custom Fabrication | Manufacturing



CJ Composite

- Self-Lubricating
- Low weight | High Strength
- Chemical Resistance
- Direct replacement for Bronze



Ultracomp®

- Self-Lubricating
- High Load | Low Speed
- 54,400 PSI Compressive Strength
- Exceptional Resistance to Vibration and Impact



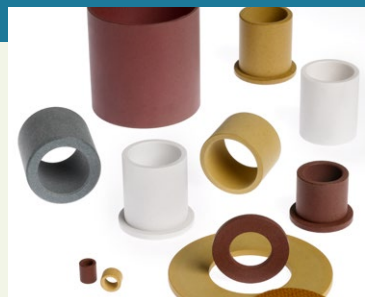
TriSteel™

- Self-Lubricating
- High Load | High Speed
- Metal Backed Bearing System
- 100% Lead Free



Rulon®

- Self-Lubricating
- Low weight | High Strength
- Low Coefficient of Friction
- Chemically Resistant



Enhanced Materials Division

- Plasma Surface Treatment
- Specialized Primers & Coatings
- Material ID & Selection
- Process Engineering | Analysis & Testing



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