Fisher Barton

Food Processing

Engineered Solutions for Durability and Performance

Thermal Spray Coatings That Perform Under Pressure

At Fisher Barton, we understand the rigorous demands placed on components in the food and beverage industry—where hygiene, durability, and performance are non-negotiable. With over 50 years of metallurgical innovation, we've mastered the science of material behavior and surface engineering to deliver solutions that thrive in the most punishing environments.

Our coatings are designed to withstand the harshest conditions—whether it's caustic washdowns, abrasive particulates, or high-moisture environments. Leveraging insights gained from decades of serving the Agriculture and Turf markets, we've developed a deep understanding of how wear mechanisms like abrasion, erosion, and corrosion impact component longevity. These lessons have shaped our approach to food-grade applications, where downtime is costly and reliability is paramount.

Using advanced materials engineering, our Thermal Spray Technologies (TST) division creates coatings that replicate or exceed the corrosion resistance of stainless steel, while offering superior wear protection. Proprietary processes like FluxFuse® and FUSIONbond® ensure metallurgical bonding and minimal porosity, resulting in coatings that are exceptionally durable and hygienic.

Engineered for Performance. Proven in Production.

Key Benefits:

- **Corrosion Resistance:** Coatings engineered to resist acids, alkalies, and moisture—ideal for food processing environments.
- **Wear Protection:** Carbide and ceramic coatings with hardness ratings up to 1500 Vickers extend component life in abrasive applications.
- **Precision Application:** Coatings can be selectively applied to complex geometries and small surfaces with high accuracy.

Machining Expertise for Critical Components

Fisher Barton's precision machining capabilities ensure that every component meets the tight tolerances and surface finishes required for food-grade applications. From stainless steel to specialty alloys, we machine and finish parts to exacting standards—ready for coating or final assembly. Our in-house metallurgical lab and Technology Center support process development, prototyping, and testing to ensure optimal performance.

Applications in the Food & Beverage Industry

Our solutions are ideal for components such as:

- Mixing blades
- Conveyor screws
- Housings
- Pump valves and seals
- Cutting and slicing tools
- Worm Gear Boxes
- Shafts
- Conveyor gear components

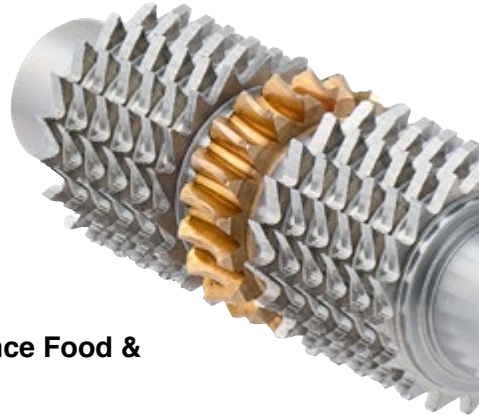
These parts often face a dual threat: abrasion from particulates and corrosion from cleaning agents or food acids. Our coatings provide a protective barrier that significantly extends service life and reduces downtime.

Production Performance

Every coating solution is developed in collaboration with our customers. Our materials engineers evaluate the operating environment, select the optimal coating material, and apply it using the most effective thermal spray process. The result: a surface engineered for durability, hygiene, and performance.

Coating Properties:

- Porosity < 0.5%
- Adhesion > 10,000 psi (ASTM C633)
- Coating thickness: 0.001–0.020 in
- Hardness up to 1500 Vickers
- High bond strength and density



Precision Gear Solutions High-Performance Food & Beverage Applications

Fisher Barton brings precision engineering and deep metallurgical expertise to the manufacturing of bronze gears, conveyor gear components, and worm gears tailored for the food and beverage industry.

Our bronze alloys are carefully selected for their superior resistance to corrosion, wear, and metal-on-metal contact—making them ideal for hygienic, high-load applications. With advanced machining capabilities and tight-tolerance quality control, we produce gear components that ensure smooth, reliable operation in conveyor systems and drive mechanisms.

Our worm gears are engineered for efficiency and durability, even in washdown environments and continuous-duty cycles. Backed by decades of experience in metallurgy and motion systems, Fisher Barton delivers gear solutions that meet the industry's strict standards for cleanliness, performance, and longevity.

Partner with Fisher Barton

With decades of experience in surface engineering and a deep understanding of food industry challenges, Fisher Barton is your partner for high-performance, long-lasting components. Our legacy in Agriculture and Turf has equipped us with the knowledge to engineer solutions that not only meet but exceed expectations in food processing environments. From field to factory, our commitment to innovation and precision ensures your components perform under pressure—day after day

Our coatings are designed to withstand the harshest conditions—whether it's caustic washdowns, abrasive particulates, or high-moisture environments. Using advanced materials engineering, we develop coatings that replicate or exceed the corrosion resistance of stainless steel, while offering superior wear protection.

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Learn more about surface engineering technologies and close tolerance machining from Fisher Barton by visiting fisherbarton.com

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