



Case Study Apple Food Systems

What was needed:

Apple Food Systems, a manufacturer of bespoke machinery and equipment for the food processing industries, required seals suitable for their depositor machines.

The seals needed to be flexible, compliant with FDA regulations, durable, and easy to fit. Red and blue materials that were easily identifiable and detectable were required, suitable for both hot and cold foods. Tougher materials were needed to withstand abrasive foods, for example those with a hot sugar content, which can often have a sandpaper effect on seals over time.

The Solution:

From the metal work drawings of their range of depositors, our team of inhouse technicians designed and manufactured prototype seals for testing.

A range of seals were created in both standard and nonstandard profiles including depositor piston seals, O-rings, guide rings and rotary seals.

The seals were manufactured using food grade materials – blue polyurethane, red polyurethane, EPDM KTW, and blue silicone. Metal detectable O-Rings were also provided. The seals were then tested inhouse and by one of Apple Food Systems customers.

The new seals were a success first time and have since been rolled out for use in all their depositor machines.





"The service received from the FPE team has been excellent. The seal concepts they have produced for us are proving to be a more flexible and longer-lasting solution to some of the seals that we have used in the past."

- Phil Mould at Apple Food Systems

Why choose us?



Vast industry

Large availability of stock & materials



Technical advice

Quick to respond &

& problem solving



manufacturing team



Friendly, Personal & Reliable











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Seals for the Food & Beverage Industry

Finding the ideal sealing solution for applications used in the food and beverage industry brings its own unique range of challenges.

Meeting Food & Drug Administration (FDA) regulatory requirements is a must, along with compatibility and durability against a range of different food types and ingredients such as sugar, fats, acids, and oils.

The team at FPE are more than experienced in providing sealing solutions for a wide variety of equipment and applications used to process and produce food and beverages, having worked closely with our customers in this industry for many years.



We provide sealing products for the F&B industry including, but not limited to:

- Breweries
- Bakeries
- Dairy
- Liquids Production
- Meat Processing
- Oil & Fat Manufacturing
- Pet Food Manufacturing
- Ready Meal Production



- Food depositors
- Bottling, Canning & Capping machinery
- Filling & Portioning systems
- Grinding & Forming systems
- Convenience/Production lines
- Decorating systems
- Injection Systems
- Plant & Factory machinery





We can design, manufacture or source a range of FDA approved seals and gaskets. Our expert team of problem solvers will work closely with you to meet the demands of your specific application.

Our products and services

- Made to Order Seals
- O-Rings with appropriate certificates of conformity (CofCs) & batch traceability
- Encapsulated O-Rings & Gaskets (including Camlock Gaskets)
- Depositor Seals
- Ring Joint Type (RJT) Seals
- Spreader Seals
- Disperser Seals
- Heat Exchanger SealsGaskets, including Spiral Wound Gaskets,
- Graphite Gaskets & Standard Gasket Sheet
- Rotary Seals

- Tri Clamp Seals & Gaskets for pipe couplings (including full range of Tri-Clover Seals)
- SMS (Swedish Manufacturing Standard) Joint Rings
- IDF (International Dairy Federation) Joint Rings
- PTFE Spring Energised Seals
- DIN & D Seals
- Hygienic Seals suitable for ISO1127, ISO2852 & ISO2853 fittings
- Metal detectable products





Available in a range of FDA approved materials

Products are available in a range of FDA approved materials, including but not limited to:

- Blue FDA Acetal
- Red & Blue FDA approved Polyurethane
- EPDM
- FPM/FKM (Viton)
- NBR
- Silicone
- PTFE
- FFKM (Karez)
- PTFE
- PEEK
- PCTFE
- UHMW

Expert Technical Advice

Research and development (R&D) is all part of the service. We pride ourselves on offering the very best technical advice to help you solve your sealing challenges.

If an off-the-shelf product is not practical, our knowledgeable team will work closely with you to design and create the most suitable part, in the most appropriate material, providing any samples for testing.

Having our own inhouse manufacturing team means that we can be flexible in our approach and fast to respond. This provides a cost-effective way to get you exactly what you need. No minimum quantity is required per order, and we can provide non-standard profiles, with no expensive moulding charges.



