



## Food Processing Machinery

M Seals engaged with the engineering manager at a high-profile food manufacturer, who was in search of a new seal supplier to replace their current OEM due to cost, delivery time concerns, suitability for Halal and inadequate certification of the seals.

### ASSESSMENT

The client outlined specific requirements for the new seals:

- All materials must be tested and certified for operation up to OM5 (100°C).
- The seals need to be appropriate for products with high salt content.
- They must match the OEM-supplied seals in design and functionality.
- Compliance with Halal standards is necessary for all supplied seals.

### SOLUTION

M Seals has extensive test equipment, including a Zwick Roell HPE shore hardness tester, Wallace Densimeter, Bespoke Immersion Vessel, Keyence IM-7000 and Zwick Roell Z005 Tensile & Elongation Testing Apparatus. The polyurethane we were to use, already met the requirements

of EC1935:2004, and OML (Overall Migration Limits) OM3 (70°C). In collaboration with our material supplier, it was further tested to OM5 (100°C), which it passed.

This was then thoroughly tested at our test facility in a saline solution to prove its suitability in the high salt content.

All the materials used for this client were certified ADI Free (Animal Derived Ingredient Free) and therefore met the Halal requirement. The sample seals we received from the client were reverse engineered by our team using the Keyence IM-700,0 so that we could produce identical copies of the OEM seals.

### RESULT

Samples of each seal were produced by our Engineered Seals Division and supplied for trial over three months. These all passed successfully and an order was placed for a much larger amount.