

# Rubber Fab

a Garlock Hygienic Technologies company

## Case Study: Meat Processing Plant Detectomer® Manway Gasket



### INDUSTRY

Food Processing – Meat Massaging

### CUSTOMER

A global company providing equipment and service to the largest Food Processors in the world.

### BACKGROUND

The food processing plant had 11 types of Meat Massager Machines which had been designed using clear silicone manway gaskets. For spare parts and service they were partnering with the OEM who, as a major supplier of food processing equipment to the world's largest meat processors, considered performance and reliability to be fundamental to their value proposition. Therefore, any modification required careful and open 3-way collaboration between Rubber Fab, the OEM and the End-User.

### CHALLENGES FACED

Meat massaging is an important but challenging process step for optimum curing, water binding and ingredient distribution in meat and poultry products. The plant was finding that after multiple cycles, the manway seals on the massage units were breaking down due to the physical stresses and strains placed on them during the process (friction, abrasion, and impact from meat chunks) and also repeated cycles (opening and closing of manways). Pieces of manway seals were clearly missing during maintenance checks, but the clear silicone could not be seen during any visual inspection and process quality checks. The conclusion was that particles of the gasket were falling into the process, thus creating contamination events and a high risk of product recalls.

### OPERATING CONDITIONS

1. Max Temperature During Process = 80°F / 27°C
2. Max Temperature During COP = 160°F / 71°C
3. Pressure: Partial Vacuum = 0.07 PSI / 5 mbar

### SOLUTION AND BENEFITS

Through in-depth discussion and collaboration with both the OEM Engineering Team and the End-User Quality Management Team it was determined that the best solution was to design a customized silicone manway gasket using Detectomer® technology. Detectomer® materials are not only metal detectable and X-ray inspectable, but they also meet all necessary industry standards to ensure full compliance. A full metal detection system was already in place as part of the End-User's HACCP programme, but X-ray Inspection equipment was also installed along the processing line to ensure that any fragments could be detected before product going out to the consumer.

The outcome is that the seal reliability has been extended, and the end-user response has been so positive that they have implemented the Detectomer® gasket technology across their facility to enjoy the benefits of more effective and safer process sealing. The OEM is extremely satisfied that Rubber Fab was willing and able to modify a standard gasket profile to create a much needed sealing solution which keeps the End-Use customer efficient, safe and compliant.

For more information, please visit: [www.rubberfab.com](http://www.rubberfab.com)