

# CASE STUDY: DeltaV-Seal™ stops flammable leakage, prevent fires



## MATERIAL:

Carbon Steel, S235

## INDUSTRY:

Food Additives

## CUSTOMER:

World Leading Supplier

## INDUSTRY CHALLENGES

In facilities that use hot oil heat transfer fluid systems, fire hazards are a significant challenge due to the combination of organic combustible liquids, which run at temperatures above their flash point, making them volatile, and failing gaskets in the system. Many industrial fires and plant explosions can be traced back to the integrity of heat oil transfer fluid systems, where seals in disrepair are a significant source of preventable leakages.

## BACKGROUND

The customer manufactures plant-based food additives (emulsions, stabilizers and polymer additives) in two large scale production facilities in northern Europe and has distribution channels all over the world. In these facilities, hot oil heat transfer fluid systems were fitted with traditional gaskets, which have to be re-torqued and replaced often, incurring maintenance costs, and are a fire hazard due to leakage of volatile liquids.

## OPERATIONAL CONDITIONS

PRESSURE: 4 bar	ATMOSPHERIC CONDITIONS: Ambient indoor
TEMPERATURE: 285 °C	MEDIA (PRODUCT): Hot oil
SIZE: DN50, DN80	MEDIA (CLEANING): N/A

## SOLUTIONS

Pipeotech worked with the customer to solve these leakages in order to reduce fire risk. The DeltaV-Seal was recommended due to the malleable sides of the seal, which form to exactly fit the flanges, and the high stiffness of the machined one-piece gasket, which results in an unmatched seal that doesn't need to be re-torqued and can withstand extreme temperatures, perfect for hot oil heat transfer.

## BENEFITS

As zero leakage has been reported since installation, the customer has been able to mitigate one of the most significant safety risks associated with hot oil heat transfer fluid systems. As well as increased safety, the use of the DeltaV-Seal results in improved efficiency and lower maintenance costs.

**PIPEOTECH**

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