



# PIPEOTECH

## CASE STUDY

### Gasket reduces ATEX zoning around flanges on biogas piping

*Reducing ATEX Zoning around the flanges of biogas piping to ensure safe, low maintenance operations*

#### ● INDUSTRY CHALLENGES

Local regulation of piping within industrial settings containing flammable substances (in this instance the synthesized biogas) requires full compliance with EN 1127 with regards to ATEX Zoning. Prior to the installation of the DeltaV-Seal™ gaskets the area was classified as ATEX zone 1. The operator wanted to ensure full compliance to the local regulations, ensure they had a reliable, long lasting, maintenance free seal, and reduce emissions.

#### ● BACKGROUND

A manufacturer of potato food products within Western Europe utilizes its produced waste including potato skins to generate biogas. The waste products are placed into a digester and microorganisms digest the organic matter within an oxygen free environment, producing methane gas and other by products. The methane gas generated, is in turn utilized within the plant to heat the cooking oil and precook the potatoes. The use of the synthesized biogas both reduces operating costs and benefits the environment.

 +47 371 63 000

 [hello@pipeotech.com](mailto:hello@pipeotech.com)

 [www.pipeotech.com](http://www.pipeotech.com)

#### Material

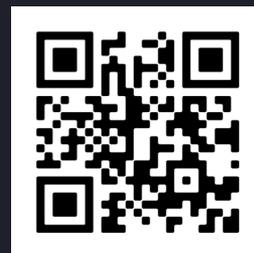
316L Stainless Steel

#### Industry

Biogas plant in food factory

#### Customer

Global potato food products manufacturer

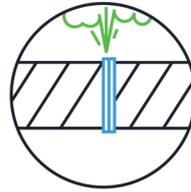


## ● BENEFITS

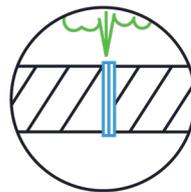
The DeltaV-Seal™ gaskets were installed, pressure, and leak tested with zero leakage detected during start up and operation. With the ATEX zone around the flanges reduced from ATEX Zone 1 to ATEX Zone 2 through a thorough engineering assessment by a competent 3rd party the operator no longer has the expenses of managing and insuring ATEX zones around their flange connections. In addition with reduced methane emissions the client is helping prevent harmful methane emissions from entering the atmosphere.



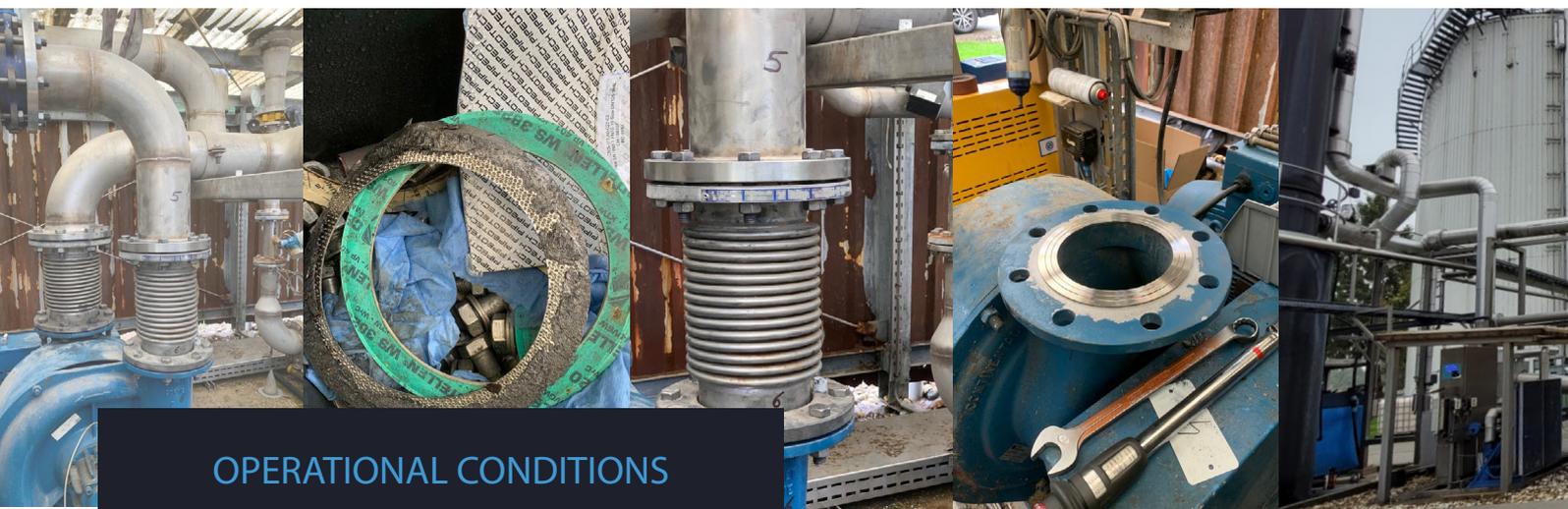
REDUCE ATEX ZONES



BLOW OUT SAFE



PREVENT FUGITIVE EMISSIONS



## OPERATIONAL CONDITIONS

PRESSURE: 0.5 Bar G

ATMOSPHERIC CONDITIONS: Brownfield - Outdoor

TEMPERATURE: 65°C

MEDIA (PRODUCT): Biogas

SIZE: DN50 - DN200

MEDIA (CLEANING): N/A

## ● SOLUTIONS

Working in partnership with a local ATEX zoning expert, Pipeotech and the piping operator were successfully able to reduce the ATEX zone around the flanges from ATEX Zone 1 to ATEX Zone 2 with compliance to EN 1127. The process of achieving compliance to EN 1127 included demonstrating the durability of the DeltaV-Seal with EN1591-1 calculations to demonstrate extremely low leakage rates combined with API6FB fire safe performance. During the first phase 20 DeltaV-Seal™ gaskets from DN50 to DN200 have been installed.



+47 371 63 000



hello@pipeotech.com



www.pipeotech.com