

GYLON EPIX® Style 3501-E

Case Study: Grease Production



Industry

Food Industries - Grease Production

Customer

A manufacturer of Oleo related products like fatty acids, glycerin, dimers, monomers, isostearics, fatty alcohols and triacetin.

Background

The customer is a subsidiary of an internationally operating group of companies, that is active worldwide. The Oleo production plant is located in Germany and has more than 100 years of Oleo producing experience.

Challenges faced

The customer has had leakage issues with the spiral heat exchanger which is fastened by outside mounted clamping screws (Bracket-screws). Based on the sealing surface, the screws are only providing low load and the whole system is exposed to daily thermocycles. Previously used gaskets had to be exchanged frequently and they were cut into slices by the separation bars of the spiral heat exchanger, causing leakage and turbulence (see pictures entitled "Prior solution").

Shutting down this part of the plant affects the whole plant availability because they have to shut down the whole steam distribution system for opening the exchanger.

Operating Conditions

1. Media: Polysaturated fatty acid and coolant in other compartment.
2. Thermocycles between 20°C and 220°C
3. Size: Inner diameter = 260mm / Outer diameter = 745mm
4. Temperature: up to 260°C short, 220°C continuous
5. Pressure: 6 bar (87psi)

Solution and Benefits

Since the installation of GYLON EPIX® Style 3501-E, the sealability of whole heat exchanger system has been significantly improved, effecting the whole plant availability. After 6 months of seamless operation, the system was opened and the general appearance inspected. The gasket was found to be in excellent condition. No dismantling, no misplacement, no cutting into slices, no discolorization, no effect becoming brittle could be found and the gasket was not sticking to flanges at all. The customer is very pleased with the results and will specify GYLON EPIX® for this application.

For more information, please visit:

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