

# CASE STUDY

## Improved sealing protection for a high-temperature, corrosive chemical process

### THE CHALLENGE

A chemical processing facility is operating a high-temperature process used in the production of anhydrous magnesium chloride. The process media is highly corrosive, and if any leakage occurs, the product will oxidise, requiring downstream carbon treatment. This adds considerable cost and operational disruption, making even minor leaks unacceptable. Within this environment, it is critical to protect safety relief valves and maintain reliable pressure relief.

The facility is highly experienced in installing rupture disc assemblies upstream of valves. However, at operating temperatures of 500°F, the combination of corrosive media and high temperatures increases the risk of leakage at sealing surfaces.

### THE TASK

The facility required a rupture disc solution that could maintain a reliable, leak-tight seal, perform consistently at high temperatures, withstand corrosive media, and offer efficient installation to reduce risk to maintenance teams.

### THE SOLUTION

The company chose the LoKr DUO as their preferred solution. Unlike three part assemblies, the LoKr DUO uses a two-piece, cartridge style design that provides a leak tight, welded seal. This design offers an additional layer of protection against leakage compared with conventional assemblies. It also means the disc is simpler to install, meaning maintenance teams spend less time at risk of exposure to corrosive, toxic chemicals.

### RUPTURE DISC SOLUTION SELECTED

→ **LoKr DUO™**: The LoKr Duo is an innovative safety cartridge that provides the proven advantages of the LoKr Safety Cartridge in a two-piece, modular design.

Instead of a single welded cartridge that must be removed in its entirety after activation, the LoKr Duo separates into an outlet body and a welded inlet/rupture disc module. When the disc bursts, you simply replace the inlet module; the outlet body is reused, saving time and reducing waste.



## Build Pressure Safety Today

Contact us for a no-obligation discussion to explore how our modular and one-piece rupture disc solutions can support safety and efficiency in your facilities and process equipment.

[info@osecoelfab.com](mailto:info@osecoelfab.com)