

# Capital Projects

High-performance pressure relief and  
explosion protection solutions from  
a leading global manufacturer



A **Halma** company

Rupture Discs | Explosion Vents | Custom Designs  
Global Project Management | Document Control

# A Global Presence

OsecoElfab is a leading global provider of pressure relief and explosion protection solutions, headquartered in the USA and UK. We design and manufacture rupture discs, explosion vents and burst sensors that protect people, plant and the environment around the world.

As well as high-performance pressure safety products, we provide EPC companies with full project support at every stage, from FEED through bidding and construction to commissioning, start-up and beyond.

Our services include engineering and design services, custom product design and build, document control and management, rupture disc sizing and selection, technical engineering support, and product training.

Our dedicated and experienced in-house EPC team acts as an extension of your team, providing tailored pressure relief solutions and supporting services. We'll work with you to prioritize safety and compliance, while expertly balancing performance and cost-effectiveness.

With manufacturing facilities in the US and UK, seven regional offices and over sixty approved representatives worldwide, our international presence enables our Global EPC Team to offer responsive support across the world.



**Halma**

OsecoElfab is part of the Halma Group, a global group of live-saving technology companies. Halma is a FTSE 100 company, and has been named one of Britain's Most Admired Companies. Halma and its 45 companies provide innovative products and services that help solve many of the key problems facing the world today. Halma employs over 7,000 people in more than 20 countries, with major operations in the UK, Mainland Europe, the USA and Asia Pacific. To achieve its purpose of growing a safer, cleaner, healthier future for everyone, every day, Halma operates in three sectors: Safety, Environment, Health. OsecoElfab is part of Halma's Safety Sector.



## Engineering and Design

Our in-house engineering team will take an active part in the early phases of project design, so you can confidently deliver the top-performing solution within your budget, knowing it will last the full plant or project lifecycle. Our experienced Design Engineers can design custom solutions specifically tailored to solve the challenges you face.



## Custom Product Design

With our easy-to-use product configurator and other digital tools, we can quickly and easily help you specify and procure the rupture discs you need. We make all the required information simply and easy to find, and our team will support you in selecting and designing the right product for your project.



## Document Control

Our dedicated and experienced in-house EPC team follows a centralized document control process, enabling us to tailor documentation packets according to your templates and EPC submission requirements. This streamlines the submission process for you, making it easy for you to meet deadlines.



## Global Coordination

Our global team works across timezones and in multiple languages, strategically placed to deliver documents where and when you need them. With team SLAs for response times, we respond quickly to quote requests and project queries to ensure your processes remain as smooth as possible.



# Key Pressure Relief Solutions

## LoKr™ Rupture Disc

The technically advanced LoKr disc delivers a best-in-class Flow Resistance Factor (FRF, or  $K_R$  value) to maximize pressure relieving performance while providing superior reliability and extraordinary service life. The LoKr offers the widest range of sizes and burst pressures available.



<b>Sizes</b>
1"-12" / 25-300mm
<b>Burst pressures</b>
10-2,500 psig / 0.69-172.3 barg
<b>Operating Ratio</b>
95% of marked burst pressure
<b>Performance tolerance</b>
+/-5%
<b><math>K_R</math> Value</b>
0.22

## Opti-Gard™ Rupture Disc

Our industry-leading Opti-Gard offers an unbeaten 3% tolerance with 95% operating ratio for greater efficiency and increased product throughput. Opti-Gard is available Flo-Tel, our non-invasive burst sensor.



<b>Sizes</b>
1"-24" / 25-600mm
<b>Burst pressures</b>
5-1,015 psig / 0.35-70 barg
<b>Operating Ratio</b>
95% of minimum burst pressure
<b>Performance tolerance</b>
+/-3%
<b><math>K_R</math> Values</b>
1.19 / 1.74 (with Flo-Tel)

## Welded Safety Cartridges

Our Safety Cartridges combine the three components of a rupture disc system into a single, sealed unit. This provides a leak-free solution that is easy to install and helps reduce emissions. Suitable for high pressures and critical conditions where preventing leakage and maintaining safety is paramount.



<b>Sizes</b>
1"-10" / 25-250mm
<b>Burst pressures</b>
10-2,500 psig / 0.69-172.3 barg
<b>Operating Ratio</b>
95% of marked burst pressure
<b>Performance tolerance</b>
+/-5%
<b><math>K_R</math> Values</b>
0.19 - 2.17 (depending on disc)

## LoKr Duo™ Two-piece Cartridge

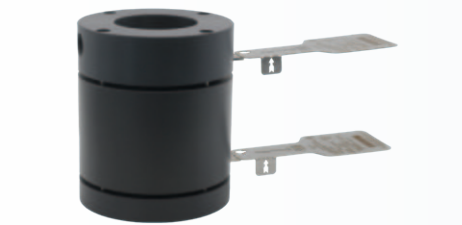
The LoKr Duo combines the three components of a rupture disc system into a two-piece unit. Overcome installation issues, minimize leaking, reduce waste and upgrade your pressure relief performance in a cost-effective, two-piece safety cartridge solution.



<b>Sizes</b>
1"-10" / 25-250mm
<b>Burst pressures</b>
10-2,500 psig / 0.69-172.3 barg
<b>Operating Ratio</b>
95% of marked burst pressure
<b>Performance tolerance</b>
+/-5%
<b><math>K_R</math> Value</b>
0.22

## Double-Disc Assembly

This environmentally responsible solution places two rupture discs in series. Should the primary disc rupture, the secondary disc prevents environmental pollution while the intermediate pressure sensor alerts maintenance teams of the need to replace the primary disc.



<b>Sizes</b>
From 1" / 25mm
<b>Operating Ratio</b>
Up to 95% of min. burst pressure
<b>Performance tolerance</b>
Up to +/-3%
<b><math>K_R</math> Value</b>
2.38 (with Opti-Gard)

## Flo-Tel Non-invasive burst sensor

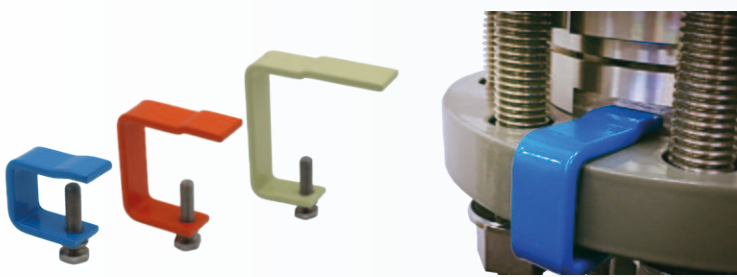
Flo-Tel is a practical, reusable burst sensor. As it is non-invasive, it eliminates leak paths and the risk of false alarms. After rupturing, the disc is the only element that needs replacing, which eliminates the need for expensive re-wiring costs and maintenance planning.



<b>Temperature range</b>
-100°C to 300°C / -148°F to 572°F
<b>Cable lengths available</b>
2m, 5m, 10m
<b>IP rating</b>
66
<b>ATEX</b>
II 1G Ex ia IIC Ga II 1D Ex ia IIIC Da

## System-Loc Failsafe Installation

System-Loc guarantees safe and accurate installation and re-installation of rupture disc holders. The bracket is mounted on the inlet mating flange, and the end of the bracket fits neatly into a groove machined into the rupture disc holder's inlet. System-Loc is an easy-to-use alternative to 'J' bolts.



## High-Performance Rupture Discs

Engineered with the latest manufacturing technologies and tailored to your specific project requirements, we specialize in custom rupture disc designs. They protect people, assets, and the environment, while allowing plant operators to improve safety, reduce downtime, and cut operational costs.

- Reverse-acting and forward-acting
- Flat and two-way designs
- Graphite, metal and composite discs
- Sizes: 1" - 36" / 25mm - 900mm
- ISO and ASME certification



<b>Sizes</b>
1/2"-42" / 15-1,050mm Custom sizes available
<b>Burst pressures</b>
0.044 - 20,300 psig / 3 mbarg - 1,400 barg
<b>Operating Ratio</b>
Up to 95%
<b>Performance tolerance</b>
Up to +/-3%
<b><math>K_R</math> Values</b>
As low as 0.19

## Custom Explosion Vents

Our explosion panels offer superior venting for the most common venting applications. We offer standard and specialist designs well as fully custom vents.

- Round, rectangular, irregular and custom shapes
- All-metal and composite constructions available
- Specialist panels include thermal, hygienic, and bespoke panels for unusual applications.
- Wide range of sizes - please inquire
- ATEX, OHSA, NFPA 68, CE and FDA approvals and certifications



<b>Sizes</b>
Custom sizes available
<b>Set pressure range</b>
0.2-14 psig / 0.014-0.96 barg Custom pressures available
<b>Max. Operating Ratio</b>
Up to 80%
<b>Max. Performance tolerance</b>
Up to +/-5% / +/-0.25 psig
<b>Temperature range</b>
-40°F/-40°C to 1,112°F/600°C



# Capital Project Services

We tailor our project management processes to provide you with full project support that meets your requirements at every stage, from FEED through bidding and construction to commissioning, start-up and beyond.

With decades of experience in working with EPC firms and hundreds of successfully completed projects, we’ve refined our project processes and product designs to meet the demands of complex capital projects.

PRE-FEED & FEED

- Product specification and development
- Disc sizing
- Pressure analysis
- Engineering design consultation
- Budgeting assistance

BIDDING

- Budgetary and technical quotes
- Rapid response to queries
- Centralized document control process
- Digital tools and automation for smooth project management

EXECUTION

- Fast lead times
- Logistics solutions
- On-site installation support
- Ongoing technical support and troubleshooting during construction

COMMISSIONING

- MRO support
- Performance analysis
- Emergency sureship / fast-track shipping
- Troubleshooting
- Ongoing training

# Capabilities

EPC firms around the world rely on OsecoElfab not just for our high-performance pressure relief solutions, but for our engineering expertise, consultancy skills and flexible project support.

Whether you’re designing a new facility or modernizing an existing one, OsecoElfab helps you meet performance, safety, and compliance standards with confidence.

## International Quality Certifications

- ASME (UD)
- PED (CE)
- CRN
- ATEX
- TÜV
- ISO 9001, 45001 and 14001
- Intertek
- ECEX Certificate of Conformity
- Safety Integrity Level (SIL)
- People’s Republic of China Safety Quality License

## Languages Spoken

- English
- Tamil
- Hindi
- Marathi
- French
- Ukrainian
- Polish
- Farsi
- German
- Russian
- Portuguese
- Italian
- Mandarin
- Spanish



Contact your local OE representative by:

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- WhatsApp
- Email

Or email our EPC team on [mcp@osecoelfab.com](mailto:mcp@osecoelfab.com)

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