

# CUSTOMISED RUPTURE DISCS FOR GIS/AIS SWITCHGEAR

Supporting the transition to net zero energy with innovative rupture disc solutions and services

CLEAN AIR / GAS MIXTURES / SF6 GAS INSULATED SWITCHGEAR



# SAFER SOLUTIONS FROM A LONG-TERM PARTNER

From customization to innovation, our Design Engineers will work directly with your team, using technical expertise to deliver rupture discs of the highest quality, matched to your specifications.



#### **Environmental protection**

- Leak-tight designs reduce gas emissions and provide environmental protection.
- Innovative designs and automation minimise wastage during manufacturing.



#### Safety

- Non-fragmenting designs increase protection for personnel.
- Tight tolerances and high operating ratios offer reliable breaking parameters.
- Rapid activation and full-bore relief enable quick, safe discharge of gases.
- Corrosion resistance offers a long life span with little to no maintenance.



#### **Innovation**

- Flexible R&D programme allows us to quickly develop new designs and new technologies.
- We are experienced in working with the different pressures, sizes and disc profiles needed for switchgear units using clean air and other SF6 alternatives.
- Our innovative designs mean we can choose the best materials for your application, enabling you to stay ahead of changing demands in the power industry.



Forward acting, cross scored, Stainless Steel, loose tag



Reverse acting, cross scored, Stainless Steel, loose tag



Reverse acting, cross scored, painted and with tag attached

We work in partnership with our customers, adding value through joint design projects, framework agreements to support stock and supply management, and ongoing engineering support.

## Supply chain support

- Automation enables flexible manufacturing from low to high volume as required.
- Stock management agreements as part of long-term partnerships support your delivery and lead time requirements, and enable you to reliably predict and manage costs.

#### **Ongoing technical support**

- Our Design Engineers are experts on industry codes and requirements, and provide tailored design support and advice for your application.
- Our engineering team will work directly with your R&D team to ensure the disc, gaskets and o-rings integrate perfectly with your equipment.
- After installation, our Design Engineers remain on-hand for further training, troubleshooting and pressure safety advice.

#### **Experienced, global company**

- Over 30 years' experience and specialist industry expertise.
- Backing from Halma plc, a global FTSE 100 Group, enables us to continually invest in innovation, automation and Agile manufacturing techniques.
- A global partner with manufacturing locations in the US and UK, supported by regional sales offices around the world.

## **Testing**

We fully test and inspect all discs prior to despatch to ensure each one meets the highest quality and leak-rate requirements for switchgear applications.

Testing options include:

- Static burst testing
- Dynamic burst testing
- Temperature testing
- Ice testing
- Fatigue testing
- Helium leak testing
- Cycle testing

## **Quality Assurance**

We manufacture and test to the following standards:

- ASME BPVC Section XIII
- BS EN ISO 4126-2:2019
- ASME UD



Forward acting, cross-scored, painted, loose tag



Reverse acting, peripherally scored, low pressure design



Forward acting, cross scored, annealed nickel with tag attached

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Partnership and Teamwork | PAGE 3



# GIS/AIS RUPTURE DISCS OUR DESIGN CAPABILITIES

#### **CUSTOMISED RUPTURE DISC DESIGNS**

Every switchgear design is different. We manufacture every rupture disc to fit your design and specifications. The table below shows our standard offering, with full customisation possible both within and outside these parameters.

Please contact us to discuss your specific project requirements.

| Standard offering                |  |
|----------------------------------|--|
| Nominal bore size                | 50 - 250 mm (2" - 10")   |
| Burst pressure                   | 1.5 - 25 barg (21 - 362 psig)  |
| Disc material                    | 316 Stainless Steel, Austenitic<br>Stainless Steel, Nickel, Graphite |
| Disc scoring                     | Cross or peripheral scoring  |
| Disc action                      | Forward, Reverse, Flat   |
| Withstand vacuum / back pressure | Both possible - please specify                                       |
| Support ring                     | Support ring available. Materials: 304 SS, Austenitic SS             |
| Mounting arrangement             | Bolted or holder + outlet ring                                       |
| Liner                            | Fluoropolymer liner available  |
| Painting                         | Optional, for additional corrosion resistance.                       |
| Marking                          | Ink jet, laser engraving, tags, QR codes to aid inventory management |

#### **KEY FEATURES**

- 25-40 year life span
- Corrosion resistant
- Non-fragmenting designs
- Leak-tight design: Helium-leak testing up to 10<sup>-8</sup> cc/sec
- Burst tolerance: +/- 5%
- Operating ratio: 90-95%
- Rapid activation
- Full-bore relief



Contact us for a no-obligation discussion on integrating rupture discs into switchgear applications. Our expert Design Engineers are here to support your projects.

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