

The background of the page is a photograph of industrial machinery, likely a pharmaceutical or food processing plant. It features stainless steel pipes, valves, and tanks. A large teal circle is overlaid in the center, containing the main title. Another smaller teal circle is at the top, containing a sub-header.

Customised
compact rupture
discs

CUSTOMISED COMPACT RUPTURE DISCS

Very high or low pressures, high vacuums, temperatures of several hundred degrees Celsius, highly volatile media or difficult installation situations – if your processes have exceptionally high pressure relief requirements, you will find the optimum solution in the following section.

We have even successfully protected space satellites against overpressure. As you can see, no application is so lofty that we cannot protect it with the appropriate rupture disc.

An overview of our products

- HPRD: High pressure rupture discs for temperatures **from -269 to +300 °C** and higher as well as pressures of **more than 3,000 bar**.
- UKB LS: Compact, micro-welded unit, which can even be used **with the lowest response pressures**, under **high vacuum** or in **ultra-clean processes**.
- Plug type rupture discs are normally used in **very small nominal widths** for high pressures and are equipped with a **very wide range of connections**.
- Extruder rupture discs: most frequently found in the **food processing and plastics industries**. As the name implies, these discs protect extruders against excessive pressure.

All the rupture disc models presented here can be customised to meet any requirements in terms of connections, nominal widths, housing geometries, pressures or temperature resistance. They are all developed, manufactured and tested in accordance with your specifications.

We give you access to more than 40 years of experience in the development and production of special rupture discs – and one of the world's largest warehouse of raw materials in the sector. With more than 1,000 different starting materials, we offer you fast and reliable pressure protection solutions.

A selection of the materials stored in our warehouse:

- **Highest purity stainless steels**, e.g. 1.4435 or 1.4404
- **Nickel**
- **Monel**
- **Inconel**
- **Hastelloy**
- **Tantalum**
- **Titanium**
- **Zirconium**

In addition, we stock a variety of precious metals and high performance plastics.



Our compact rupture discs are used in the following sectors:

Chemicals, pharmaceuticals, research and development, nuclear technology, oil & gas, plastics processing, food processing, pet food production, space technology and offshore plants as well as in hydraulic, pneumatic, low temperature and refrigeration technologies.

Customised REMBE® rupture discs offer you

- The potential for use in applications over an **extremely wide range of temperatures and pressures**.
- Maximum **leak-tightness**.
- **Customised design** of the housing and connections as well as **the smallest nominal widths**.
- Corrosion resistance.

A selection of the available connections:

- CF / KF flange
- ISO-K / ISO-F flange
- VCR fitting
- Weld neck flange (also with tongue and groove)
- Cutting ring fitting
- Threaded fitting

The REMBE® Rush Order Service is also available for our customised rupture discs – further information on page 08.

UKB LS

The UKB LS comprises a customisable housing, a reverse acting rupture disc and a three-section knife. When the defined burst pressure is reached, the rupture disc is pressed against the knife and opens. This design provides the lowest possible burst pressures while at the same time offering good vacuum resistance even up to high vacuum conditions. The rupture disc and housing are micro-welded and all elements are made of metal. This ensures maximum leak-tightness. Leakage rates of up to 10⁻¹⁰ are possible. With a wide array of available connections, we supply the ideal pressure relief unit for every application – even for ultra-clean processes.

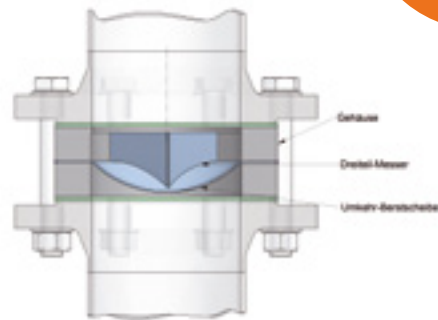
Despite its individuality, a number of “standard” sizes have become established for UKB LS over the last few decades. These are for installation between industry standard flanges.



Helium
leak-tested

Your advantages

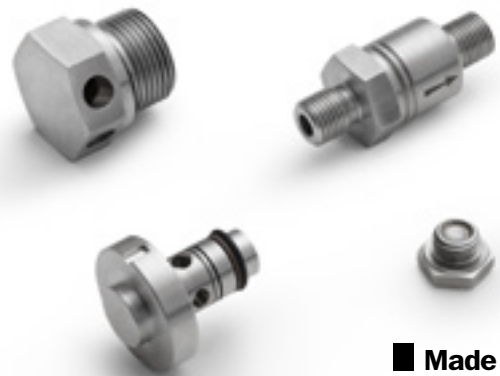
- Maximum **leak-tightness**.
- Also suitable for **high vacuum** applications.
- Out of this world: these rupture discs **even protect space satellites** – so you can be confident they will function reliably.



PLUG TYPE RUPTURE DISCS

Like UKB-LS, plug type rupture discs consist of more than just the rupture disc itself – the housing is also part of the product and can be adapted to an extremely wide range of connections and geometries. Above all, plug type rupture discs are used to protect applications with high pressures and connections with small nominal widths.

In most cases, customers install single layer rupture discs. These are laser-welded for the tightest burst tolerances and absolute reliability. Depending on the model, the rupture disc can be welded without additional materials, fixed in position using special solder or clamped.



Made
in
Germany

Your advantages

- The **smallest nominal widths** in combination with **very high burst pressures**.
- **Fully customisable** housing design.
- Easy to install.

HPRD HIGH PRESSURE RUPTURE DISCS

The geometry of our rupture discs offers you a valuable innovation: more stable and more durable rupture discs.

By modifying the design of our existing rupture discs, we have made a crucial improvement: Unlike other high pressure rupture discs, the weld seam is not subjected to shear and bending forces – only to pressure. Anyone with a technical knowledge of this area understands that this makes a major difference. Geometrically separating the area under peak stress and the weld seam makes the rupture disc more durable and able to comply with the tightest burst tolerances – tolerances of $\pm 3\%$ are possible.

The new HPRD rupture discs provide long-term protection for processes with temperatures above 300°C and pressures in excess of 3500 bar.

They have already proved themselves under real process conditions and in a wide range of customer applications. These include reactors, autoclaves and compressors in a variety of high pressure processes, such as LDPE production.

Your advantages

- Extra long service life even at the highest temperatures and pressures.
- Burst tolerance of $\pm 3\%$ prevents premature rupture disc response and thus production standstills.
- Design can be adapted in any way



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EXTRUDER RUPTURE DISCS

Extruder rupture discs are a reliable solution for relieving excessive pressure in plastic and food extruders. Like all our customised rupture discs, the length, geometry, (threaded) connections, temperature resistance and response pressure can be tailored to your specific requirements. The rupture disc is welded or soldered into the housing.

The special gas-tight soldered or welded rupture disc membrane is installed directly in the area of the extruder screw. This eliminates the risk of dead spaces where residues can accumulate. REMBE® extruder rupture discs can also be fitted with an integrated signalling device (optional), which informs the process control system about the response of the rupture disc.

All standard connections/bores for pressure transducers or probes on plastic extruders can be fitted with REMBE® rupture discs.

Also available
with signalling
devices



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Your advantages

- Maximum plant safety and availability in models with signalling devices.
- Compact unit can be replaced quickly and easily.



Integrando Soluciones desde 1932

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