



Safety is for life.™

Rupture Disc and Safety Valve in Combination: An Unbeatable Team.

Solutions
also available
for Sanitary
Designs.



Combining rupture discs and safety valves is a useful method of improving process efficiencies and enhancing safety while reducing downtime and operating costs. A rupture disc can be installed either upstream, downstream or in parallel to the valve providing a range of benefits and dependent on the configuration. Isolating the valve with a rupture disc can also minimise the overall cost of investment in several ways. REMBE® manufactures a wide range of forward and reverse acting rupture discs providing cost-effective valve protection.

Your Advantages

- ✓ Improve leak tightness.
- ✓ Reduce emissions.
- ✓ Minimise Valve Failure.
- ✓ Enhance Valve Lifespan.
- ✓ Reduce Maintenance.
- ✓ Reduce Costs.
- ✓ Maximise return on investment.
- ✓ In-Situ Maintenance.

Unique benefits for upstream protection of safety valves.

Upstream protection:

Minimise leakage. Minimise cost.
Maximise performance.

REMBE®'s rupture discs offer **reliable protection of safety valves** against corrosive or polymerising media while enhancing overall leak tightness of the installation. **Reduction of fugitive emissions**

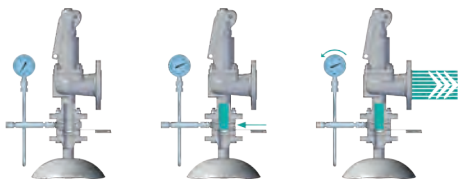
is critical for most process plants. Installing a rupture disc upstream of the valve **increases the leak-tightness** of the installation. Following an overpressure event, the valve will reclose **minimising product loss** or the flow of harmful media into the environment. The rupture disc acts as a barrier between the process media and the valve.

Extend Valve lifespan

Harsh process conditions damage the working parts of safety valves, resulting in leakages or the valve failing to operate when required. By installing a disc in front of the Safety Valve, **maintenance requirements can be reduced** as can costly down-time.

In-situ testing

Removing the valve from the process to test and inspect can be time-consuming and expensive. Installing a rupture disc in combination with a valve allows for rapid and efficient valve inspection.



In-situ Test: The space between the rupture disc and the safety valve is pressurised in order to test whether the safety valve is functioning correctly.

Technical considerations

When using a rupture disc upstream to a safety valve there are several technical factors which must be considered to ensure safe operation of the valve and long-term performance of the rupture disc.

- The size of the disc, its relief capacity and its set pressure must all be calculated in accordance with industry legislative standards and guidelines. **REMBE® can help size rupture discs** in accordance with ASME and ISO.
- The opening of the rupture disc must not influence the functionality of the valve – all REMBE® rupture discs used in combination with Safety Valves are **non-fragmenting designs**.
- The distance between the disc and the valve must allow for a reliable opening of both devices – REMBE® holders can be supplied with an **adjusted height** where necessary.
- Piping between the protected system and valve must be as short as possible and consider a pressure drop, including the rupture disc, of $< 3\%$.
- The interspace between the disc and the valve should be carefully monitored or relieved to atmosphere – REMBE® recommend the use of an **excess flow valve** installed in the holder outlet as a possible solution.



SFD

Forward acting
rupture disc.

KUB®

Reverse acting
rupture disc.

IKB®

Reverse acting
rupture disc.

REMBE® rupture discs are available in a wide range of materials suitable for many process conditions. Savings can be made on the cost of the valve by employing a disc in an exotic material

to isolate the valve from a potentially corrosive process rather than investing in a specialist safety valve.

Made in 
Germany

KUB®

With one of the widest burst pressure and size ranges for reverse acting rupture disc technology on the market (20 mm to 800 mm) the KUB® is the ideal solution for valve protection.

Your Advantages

- ✓ Unique buckling pin element – creates the **most robust, high-performance rupture disc** available.
- ✓ Virtually immune to damage – ensures the **best possible condition of the safety valve reducing maintenance requirements**.
- ✓ Two layer construction – Exotic material combinations possible **reducing valve costs**.

IKB®

The only reverse acting rupture disc to be manufactured using REMBE®'s unique Contour Precision Lasering™ (CPL™) technology ensuring high quality, accurate, burst control even in the harshest of environments.

Your Advantages

- ✓ Superior Lifetime – CPL™ manufacturing **reduces downtime** caused by premature failure of leakages.

- ✓ High performance with cost-effective pricing – **maximise cost of investment**.
- ✓ **Long-life solution** – excels in demanding high-cycling applications.

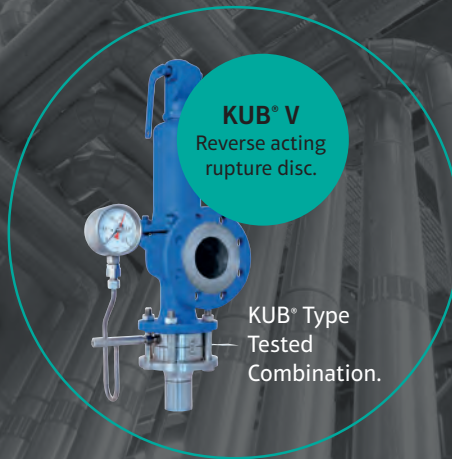
SFD

Manufactured using Rembe's unique Contour Precision Lasering™ (CPL™) reducing downtime caused by pin-holing or premature failure.

Your Advantages

- ✓ Low Profile Constriction – ensures the disc **will not impact the functionality of the valve** without the need for increased holder height or additional spool pieces.
- ✓ **Ideal for Polymerising processes** – isolates the valve from the process media.
- ✓ Compatible with liquid-only applications – **superior performance** in liquid applications.

Solution: REMBE® KUB® V.



KUB® V is a high-performance; reverse acting; rupture disc specifically designed to facilitate in-situ testing allowing for simplified maintenance and reduced down-time. To test the valve in situ the space between the rupture disc and the relief valve must be pressurised until the relief valve

opens. The unique KUB® V design boasts a **certified back pressure capability of 135%*** of the specified burst pressure ensuring the long-term performance of the disc is not affected by the in-situ testing of the valve.

*Depending on the specific application.

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