



Safety is for life.™

PRODUCT INFORMATION



LOW PROFILE HIGH PERFORMANCE

STAR is a high-performance, forward-acting, rupture disc which combines a triple-section construction with a unique, star-shaped, opening pattern to provide a durable, low-profile, solution. STAR is available across low to high burst pressures and compatible with an extensive range of process conditions. For demanding applications within the oil and gas, chemical and petrochemical sectors, the unique construction of the STAR rupture disc ensures superior performance and durability in harsh operating environments where alternative solutions may fail prematurely. STAR provides a long service life, minimising costly downtime and limiting unnecessary, frequent, replacement costs.

Process medium	Suitability
Gas/Steam	✓✓
Liquid with gas cushion	✓✓
Liquid	✓✓
Two phase flow	✓✓

✓✓ Recommended

Your advantages

- **Durable, low-profile solution** – ensures superior performance and long life-cycle even where pressure-cycling or vacuum conditions are present.
- **Corrosion resistant and cost-effective** – the critical burst element is not in contact with the process medium and can be sourced in different materials reducing overall cost without affecting performance.
- Unique star-shaped construction – low profile enables **simpler installation** and **reduced holder costs**.
- **Minimal risk of fragmentation** – even at high burst pressures.

■ Made
■ in
■ Germany



You can find detailed information and contact details for enquiries relating to STAR at www.rembe.de. Give us a call on: T +49 2961 7405-0 or contact us via email: info@rembe.de.





Safety is for life.™

PRODUCT INFORMATION

Cost-effective, durable solution

STAR comprises three layers, a top section, a sealing membrane and an integrated vacuum support. As the critical burst element is not in contact with the process media, this can be sourced in less exotic materials enabling the STAR rupture disc to be a cost-effective solution even for the most corrosive operating conditions. The sealing membrane ensures high leak integrity of the disc, reducing the risk of loss of process media during normal operating conditions. Using a metallic seal ensures the long-term robustness and performance of the rupture disc even where harsh process media is present. The integrated vacuum support guarantees high vacuum resistance. The material selection of this rupture disc is fully customisable to best meet process conditions and budget requirements.

Low profile solution limits installation damage

The low-profile solution enables simpler installation, reducing the risk of dome damage during installation and maintenance schedules. Low-profile solutions can reduce holder costs, further enhancing the affordability of this solution. REMBE®'s advanced manufacturing and design process for the the STAR rupture disc ensures fragmentation is kept to a minimum upon burst even when operating under the highest burst pressures. Available from 25 mm to 600 mm STAR is mounted into REMBE® IG-HL rupture disc holder for installation into industry standard flange arrangements*. Compatible with a range of REMBE® signalling devices including its advanced NIMU, for reliable notification of disc burst. STAR is a versatile rupture disc offering superior performance across a range of demanding process conditions.

*Can be installed directly between flanges dependent on burst pressure and process conditions.

Certification

Works Certificate	PED	ASME	KOSHA (South Korea)	CML (China)	TR CU (EEU)

Technical Data

Applications			
Chemical reactors	✓	Petrochemical	✓
Turbines	✓	Process vessels	✓
Condensers	✓	Chemical chillers	✓
Refineries	✓	Power plants	✓
Chemical	✓		

Product Parameters		
Feature	Characteristics	Variations
Signalling available	✓	NIMU, SIGU, BT-S, FOS, SB(-S), SGK, SBK-S
Tolerance [%]	± 10 (±5; -0/+10; +0/-10 upon request)	-
Manufacturing design range [%]	0	-
Operating ratio [%]	80	-
Non-fragmenting design	✓	-
Temperature range [°C]	-80 to 600**	-
Leakrate [mbar l s ⁻¹]	10 ⁻⁴ to 10 ⁻⁵	-

**Temperature limits for PED certification may vary.



Safety is for life.™

PRODUCT INFORMATION

Burst Pressure Range (PED)

DN	NPS [in]	Vent area		Burst pressure			
		[cm ²]	[in ²]	min. [bar g]	max. [bar g]	min. [psi g]	max. [psi g]
20	0.75	2.7	0.42	0.5	1000	7.25	14500
25	1	4.5	0.69	0.5	1000	7.25	14500
32	1.25	8.5	1.32	0.5	1000	7.25	14500
40	1.5	10	1.55	0.5	1000	7.25	14500
50	2	19	2.95	0.5	1000	7.25	14500
65	2.5	35	5.43	0.5	400	7.25	5800
80	3	50	7.75	0.5	400	7.25	5800
100	4	80	12.4	0.5	400	7.25	5800
125	5	120	18.6	0.5	400	7.25	5800
150	6	160	24.8	0.5	400	7.25	5800
200	8	280	43.4	0.5	400	7.25	5800
250	10	440	68.2	0.5	400	7.25	5800
300	12	650	101	0.5	400	7.25	5800
350	14	860	133	0.5	250	7.25	3630
400	16	1100	171	0.5	250	7.25	3630
450	18	1520	236	0.5	160	7.25	2320
500	20	1800	279	0.5	160	7.25	2320
550	22	2150	333	0.5	100	7.25	1450
600	24	2500	388	0.5	100	7.25	1450
650	26	3100	481	0.5	64	7.25	928
700	28	3500	543	0.5	64	7.25	928
750	30	4200	651	0.5	64	7.25	928
800	32	4600	713	0.5	64	7.25	928

Further sizes upon request.

Consulting. Engineering. Products. Service.

REMBE® GmbH Safety+Control

Gallbergweg 21 | 59929 Brilon, Germany | T +49 2961 7405-0 | F +49 2961 50714
info@rembe.de | www.rembe.de