



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.





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Certification

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

Technical Data

Product Parameters		
Feature	Characteristics	Variations
Holder compatibility	✓	IG-HL, Flange, IG-HP, IG(-S), Threaded Holder, U-Holder
Signalling available	✓	NIMU, SIGU, BT-S, FOS, SB(-S), SBK-S
Pulsating/Cycling	✓	–
Vacuum resistance	absolute	–
Back pressure resistance	✓	–
K _{RG} (ASME)	2	–
K _{RL} (ASME)	2	–
Torque independent burst pressure	✓	–
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 Range		
Material	min. Temperature [°C]	max. Temperature [°C]
Inconel	-196	450*
Hastelloy	-196	400
Monel	-10	425
Nickel	-10	600
Stainless steel	-80	320
Titanium	-10	300
Tantalum	-10	250
PTFE	-79	230
FEP	-10	200

*Temperature limits for PED certification may vary.



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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.



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Burst Pressure Range (ASME)

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	3.1	0.48	3	431	43.5	6250
25	1	5.25	0.81	2.5	431	36.3	6250
32	1.25	9.5	1.47	2.5	431	36.3	6250
40	1.5	11.3	1.75	2	431	29	6250
50	2	21	3.26	1	431	14.5	6250
65	2.5	30.5	4.73	1	431	14.5	6250
80	3	47.6	7.38	0.6	431	8.7	6250
100	4	82	12.71	0.5	431	7.3	6250
125	5	129	20	0.4	431	5.8	6250
150	6	186.5	28.91	0.4	431	5.8	6250
200	8	322.5	49.99	0.2	431	2.9	6250
250	10	508	78.74	0.2	431	2.9	6250
300	12	729	113	0.15	431	2.2	6250
350	14	889	137.8	0.15	259	2.2	3750
400	16	1178	182.59	0.10	259	1.5	3750
450	18	1507	233.59	0.10	103	1.5	1500
500	20	1877	290.94	0.10	103	1.5	1500
550	22	2287	354.49	0.10	103	1.5	1500
600	24	2697	418.04	0.10	103	1.5	1500
650	26	3230	500.65	0.05	103	0.7	1500
700	28	3707	574.59	0.04	103	0.6	1500
750	30	4334	671.77	0.04	103	0.6	1500
800	32	4889	757.8	0.03	103	0.4	1500
850	34	5600	868	0.03	52	0.4	1500
900	36	6221	964.26	0.03	52	0.4	1500
950	38	7030	1089.65	0.03	20	0.4	750
1000	40	7805	1209.78	0.03	16	0.4	750
1050	42	8620	1336.1	0.03	10	0.4	290
1100	44	9477	1468.94	0.03	10	0.4	145
1150	46	10367	1606.89	0.03	10	0.4	145
1200	48	11290	1749.95	0.03	6	0.4	87
1250	50	12154	1883.87	0.03	6	0.4	87
1300	52	13130	2035.15	0.03	6	0.4	87
1400	56	15179	2352.75	0.03	6	0.4	87



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Material Specific Parameters

DN	NPS [in]	Burst pressure								
		SS	Inc	Ni	Mo	Has	Al	PTFE	FEP	PTFE
		min. [bar g]	min. [bar g]	min. [bar g]	min. [bar g]	min. [bar g]	min. [bar g]	min. [bar g]	min. [bar g]	max. [bar g]
20	0.75	22	20	10	13	28	9	1.5	3	30
25	1	16	17	11	10	20	5	1	2.5	25
32	1.25	16	17	11	10	20	5	1	2.5	20
40	1.5	10	10	4.5	6	15	3	0.9	2	20
50	2	8	7.5	3.2	4.5	10	1.5	0.7	1	20
65	2.5	7	5	2.5	3	6.6	2	0.6	1	15
80	3	6	4.3	2	2.5	6	2.4	0.4	0.6	12
100	4	5	3.3	1.6	2	5	1.5	0.3	0.5	10
125	5	5	3.3	1.6	-	5	1.5	0.3	0.5	10
150	6	5	3.1	2.2	-	5	1	0.2	0.4	8
200	8	4.5	3.2	1.8	-	4.5	0.7	0.1	0.2	8
250	10	4	3.2	1.5	-	4.5	0.7	0.09	0.2	8
300	12	3.3	3.1	1.4	-	4	0.6	0.08	0.15	8
350	14	3	3	1.2	-	4	0.5	0.08	0.15	6
400	16	1.1	2.5	1	-	3.5	0.4	0.08	0.1	6
450	18	1	3.5	0.9	-	3.5	0.4	0.08	0.1	6
500	20	3.5	4.5	0.75	-	3	0.3	0.06	0.1	6
550	22	3.5	4.5	-	-	-	0.3	0.06	0.1	4
600	24	2.8	4.2	-	-	-	0.2	0.05	0.1	4
650	26	-	-	-	-	-	-	-	-	4
700	28	-	-	-	-	-	-	-	-	3
750	30	-	-	-	-	-	-	-	-	2
800	32	-	-	-	-	-	-	-	-	2
850	34	-	-	-	-	-	-	-	-	1
900	36	-	-	-	-	-	-	-	-	1
950	38	-	-	-	-	-	-	-	-	1
1000	40	-	-	-	-	-	-	-	-	1
1050	42	-	-	-	-	-	-	-	-	1
1100	44	-	-	-	-	-	-	-	-	1
1150	46	-	-	-	-	-	-	-	-	1
1200	48	-	-	-	-	-	-	-	-	1
1250	50	-	-	-	-	-	-	-	-	1
1300	52	-	-	-	-	-	-	-	-	1
1400	56	-	-	-	-	-	-	-	-	1

Material specific parameters should be considered in combination with the applicable certification. Due to different type testing requirements, deviations in technical parameters are possible.
SS = Stainless Steel; Has = Hastelloy; Inc = Inconel; Ni = Nickel; Mo = Monel; Ti = Titanium; Ta = Tantalum

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