



Safety is for life.™

## PRODUCT INFORMATION



### ELIMINATE DOWNTIME CONCERNS WITH ADVANCED CPL™ TECHNOLOGY

The SFD (Sublimated Forward Acting Rupture Disc) is a versatile rupture disc solution suitable for use with a wide range of process conditions. Manufactured using Contour Precision Lasering, this forward acting rupture disc eliminates common industry concerns associated with mechanically scored discs such as premature failure, corrosion on the score-line and pin-holing. Unexpected problems can cause costly downtime, REMBE®'s CPL™ Technology maximizes the lifetime of the installed disc and ensures high-quality, accurate burst control even in the harshest of environments.

#### Low profile solution for improved safety valve isolation

The SFD is a low-profile, non-fragmenting design, enabling space saving during installation and ensuring the performance of the relief valve is not affected by the open rupture disc. CPL™ guarantees accurate lines of sublimation across the rupture disc providing precise, full-bore opening upon burst; maximizing the flow of process media through the rupture disc.

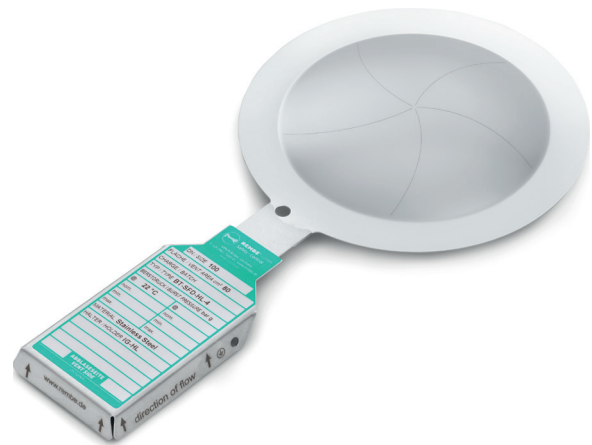
CPL™ provides a smooth process face on the rupture disc while eliminating the need for an additional liner, which may be incompatible with certain process media. The smooth surface ensures no process build-up, providing long-term reliability of the product, even with aggressive process media, making it ideal for polymerization processes.

The SFD is a cost-effective high-performance solution capable of operating within various process conditions making it the obvious selection for demanding processes within industries such as oil and gas, chemical and petrochemical as well as food and pharmaceutical.

### Your advantages

- Manufactured with unique **Contour Precision Lasering (CPL™)** – **Reduces downtime** caused by premature failure, corrosion or pin-holing.
- **Low profile design** – Excellent for relief valve isolation.
- Suitable for gas, liquid, two-phase flow and highly viscous media – maximizes installation points where this solution can be used.
- Compatible with a wide range of process conditions – Single disc type selection can offer significant installation, purchasing and maintenance benefits.

Also available with integrated signaling



You can find detailed information and contact details for inquiries relating to SFD at [www.rembe.us](http://www.rembe.us). Give us a call on: T +1 704 716 7022 or contact us via email: [info@rembe.us](mailto:info@rembe.us).



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### Widest pressure range for plant wide flexibility

The SFD meets a wide range of customers rupture disc requirements making it the ideal solution to fulfil a variety of process conditions across an entire plant.

This high-performance solution boasts one of the largest size – DN 20 to DN 600 (3/4”-24”) and burst pressure ranges available – 2 to 431 bar g and can be manufactured in a wide range of anti-corrosive materials. Minimizing rupture disc variation across the plant can offer significant installation, purchasing and maintenance benefits.

The SFD is suitable for use with various process media, in gas or liquid or as a combination of both. The SFD is fully compatible with liquid only applications, maximizing installation points where this high-performance solution can be installed.

Selecting the SFD to fulfil the requirements of all rupture disc installation points across the plant; including where relief valve isolation is required can provide significant cost benefits, not only in the product itself but by enabling the valve to be sourced in more cost-effective materials.

The SFD is a high-performance solution for various applications, including full vacuum conditions\*. Compatible with REMBE®'s IG-HL holder and NIMU signaling device for a full rupture disc assembly, ensuring fail-safe installation and notification of disc burst site-wide.

\*Values are compliant with PED certification, for other certifications, burst pressures and MNFA (ASME Sec. VIII, Div. 1) may vary.

## Certification

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

Technical restrictions must be observed dependent on the certification.

Applications			
Safety valve isolation	✓	Chemical reactors	✓
Refineries	✓	Process vessels	✓
Chemical	✓	Distillation columns	✓
Petrochemical	✓	Pumps	✓
Power plants	✓	Gas storage	✓
Slurry	✓	Heat exchangers	✓
Viscous service	✓	Separators	✓
Polymerization processes	✓	Condensers	✓

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

\*Temperature limits for PED certification may vary.



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### Technical Data

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

Recommended  
 Suitable



### Burst Pressure Range (PED)

DN	NPS [in]	Vent area		Burst pressure			
		[cm <sup>2</sup> ]	[in <sup>2</sup> ]	min. [bar g]	max. [bar g]	min. [psi g]	max. [psi g]
20	0.75	2.7	0.42	16	431	232	6250
25	1	4.5	0.7	10	431	145	6250
32	1.25	8.5	1.3	6.5	431	94.3	6250
40	1.5	11	1.7	6.4	431	92.8	6250
50	2	21	3.3	3.2	431	46.4	6250
65	2.5	30.5	4.7	3.2	431	46.4	6250
80	3	47.6	7.4	3.2	431	46.4	6250
100	4	80	12	2	431	29	6250
125	5	120	19	2	431	29	6250
150	6	180	28	2	431	29	6250
200	8	280	43	2	431	29	6250
250	10	440	68	2	431	29	6250
300	12	650	100	2	431	29	6250
350	14	860	130	2	259	29	3760
400	16	1100	170	2	259	29	3760
450	18	1480	230	2	103	29	1490
500	20	1850	290	2	103	29	1490
550	22	2200	340	2	103	29	1490
600	24	2700	420	2	103	29	1490

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**REMBE® Inc.** | 9567 Yarborough Road | Fort Mill, SC 29707, USA | T +1 704 716 7022 | F +1 704 716 7025  
 info@rembe.us | www.rembe.us