



Safety is for life.™

DATA SHEET



SUPERIOR PERFORMANCE FOR LOW PRESSURE APPLICATIONS

The ODV is a triple-section forward acting, rupture disc design suitable for a range of low to medium pressure applications. This cost-effective solution comprises three rupture disc elements, a top section burst element, a sealing membrane and an integrated vacuum support, ensuring superior performance and durability across a wide range of process conditions. REMBE®'s unique manufacturing process uses precision laser machinery to create the critical burst elements to define the burst pressure for accurate, full bore, burst opening.

The ODV is an excellent pressure relief solution for a wide range of applications in various industry sectors. Compatible with conditions operating as low as 0.05 bar g, the ODV is suitable for gas, liquid and two phase flow applications. The 30° seat**, forward acting rupture disc is a non-fragmenting design available DN 20 to DN 600 (3/4"-24")* making it the ideal solution to fulfil various process conditions.

*Further nominal sizes available upon request.

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

✓✓ Recommended

Your advantages

- Manufactured with REMBE®'s **precision laser technology** – ensures accurate performance and opening.
- Suitable for a wide range of pressures – maximises positions where disc can be installed across the facility.
- Versatile, corrosion resistant solution – triple-section construction ensures **maximum corrosion resistance** for long-term, reliable performance.
- Compatible with a wide range of process conditions – **versatile cost-effective solution** suitable for numerous applications.

Made in Germany



**Also available as a flat-seat configuration and suitable for direct installation between flanges dependent on process conditions. For direct installation between flanges, see ODV F Datasheet for more information.

You can find detailed information and contact details for enquiries relating to ODV 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

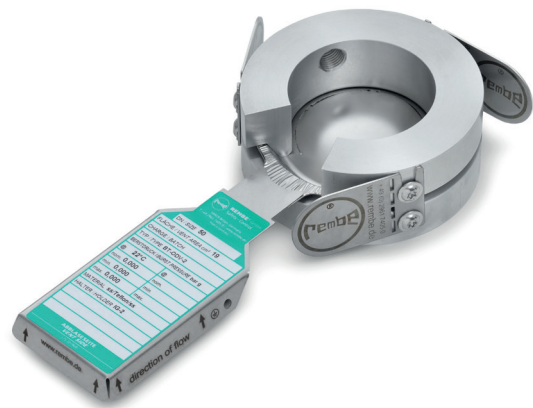
Works Certificate	PED	ASME	KOSHA (South Korea)	CML (China)	TR CU (EAEU)

Technical Data

Product Parameters		
Feature	Characteristics	Variations
Holder compatibility	IG(-S), IG HL, IG-HP, screw holder, U-Holder	-
Signalling available	✓	NIMU, SIGU, SK, FOS, SB(-S), SBK-S, SGK
Pulsating/Cycling	✓	-
Vacuum resistance	✓	-
Back pressure resistance	✓	-
K _{RG} (ASME)	0.9	-
Torque independent burst pressure	✓	-
Burst 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 ⁻¹ to 10 ⁻⁶	-

Temperature Range PED		
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	
		ODV [cm ²]	ODV HL [cm ²]	ODV [in ²]	ODV HL [in ²]	ODV (IG) min. [bar g]	ODV HL min. [bar g]
20	0.75	2.7	2.7	0.42	0.42	0.5	0.5
25	1	4.5	4.5	0.70	0.70	0.5	0.5
32	1.25	8.5	8.5	1.32	1.32	0.5	0.5
40	1.5	10	10	1.6	1.6	0.5	0.5
50	2	19	19	3.0	3.0	0.5	0.5
65	2.5	35	35	5.4	5.4	0.5	0.5
80	3	50	50	7.8	7.8	0.5	0.5
100	4	80	80	12.4	12.4	0.5	0.5
125	5	120	120	18.6	18.6	0.5	0.5
150	6	160	160	24.8	24.8	0.5	0.5
200	8	280	280	43.4	43.4	0.5	0.5
250	10	440	440	68.2	68.2	0.5	0.5
300	12	650	650	101	101	0.5	0.5
350	14	885	860	137	133	0.5	0.5
400	16	1130	1100	175	171	0.5	0.5
450	18	1590	1520	246	236	0.5	0.5
500	20	1800	1800	279	279	0.5	0.5
550	22	-	2150	-	333	-	0.5
600	24	2626	2500	407	388	0.5	0.5
650	26	-	3100	-	481	-	0.5
700	28	-	3500	-	543	-	0.5
750	30	-	4200	-	651	-	0.5
800	32	-	4600	-	713	-	0.5

DN	NPS [in]	Burst pressure					
		ODV (IG) max. [bar g]	ODV HL max. [bar g]	ODV (IG) min. [psi g]	ODV HL min. [psi g]	ODV (IG) max. [psi g]	ODV HL max. [psi g]
20	0.75	200	1000	7.25	7.25	2900	14500
25	1	200	1000	7.25	7.25	2900	14500
32	1.25	200	1000	7.25	7.25	2900	14500
40	1.5	200	1000	7.25	7.25	2900	14500
50	2	200	1000	7.25	7.25	2900	14500
65	2.5	70	400	7.25	7.25	1015	5800
80	3	70	400	7.25	7.25	1015	5800
100	4	50	400	7.25	7.25	725	5800
125	5	35	400	7.25	7.25	508	5800
150	6	30	400	7.25	7.25	435	5800
200	8	16	400	7.25	7.25	232	5800
250	10	14	400	7.25	7.25	203	5800
300	12	10	400	7.25	7.25	145	5800
350	14	8	250	7.25	7.25	116	3630
400	16	6	250	7.25	7.25	87	3630
450	18	6	160	7.25	7.25	87	2320
500	20	6	160	7.25	7.25	87	2320
550	22	-	100	-	7.25	-	1450
600	24	6	100	7.25	7.25	87	1450
650	26	-	64	-	7.25	-	928
700	28	-	64	-	7.25	-	928
750	30	-	64	-	7.25	-	928
800	32	-	64	-	7.25	-	928



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	2.7	0.42	6	200	87	2900
25	1	4.5	0.70	5	180	72.5	2610
32	1.25	8.5	1.32	5	160	72.5	2320
40	1.5	10	1.55	4	150	58	2175
50	2	19	2.94	3	150	43.5	2175
65	2.5	30	4.72	2	150	29	2175
80	3	47	7.33	1	150	14.5	2175
100	4	80	12.4	0.4	150	5.8	2175
125	5	120	18.6	0.4	150	5.8	2175
150	6	160	24.8	0.3	130	4.4	1885
200	8	280	43.4	0.15	120	2.2	1740
250	10	440	68.2	0.1	120	1.5	1740
300	12	650	100.7	0.1	100	1.5	1450
350	14	885	137	0.1	100	1.5	1450
400	16	1130	175	0.1	80	1.5	1160
450	18	1512	234	0.1	70	1.5	1015
500	20	1800	279	0.1	60	1.5	870
600	24	2626	407	0.048	60	0.7	870
650	26	3050	473	0.048	50	0.7	725
700	28	3675	570	0.048	50	0.7	725
750	30	4200	651	0.048	40	0.7	580
800	32	4850	752	0.048	40	0.7	580

ASME Values only applicable when installed in an IG Holder.
For installation directly between flanges see ODV F datasheet.

Material Specific Parameters

DN	NPS [in]	Burst pressure							
		SS min. [bar g]	Inc min. [bar g]	Ni min. [bar g]	Mo min. [bar g]	Has min. [bar g]	Al min. [bar g]	PTFE min. [bar g]	FEP min. [bar g]
20	0.75	22	20	10	13	28	9	1.5	3
25	1	16	17	11	10	20	5	1	2.5
32	1.25	16	17	11	10	20	5	1	2.5
40	1.5	10	10	4.5	6	15	3	0.9	2
50	2	8	7.5	3.2	4.5	10	1.5	0.7	1
65	2.5	7	5	2.5	3	6.6	2	0.6	1
80	3	6	4.3	2	2.5	6	2.4	0.4	0.6
100	4	5	3.3	1.6	2	5	1.5	0.3	0.5
125	5	5	3.3	1.6	2	5	1.5	0.3	0.5
150	6	5	3.1	2.2	-	5	1	0.2	0.4
200	8	4.5	3.2	1.8	-	4.5	0.7	0.1	0.2
250	10	4	3.2	1.5	-	4.5	0.7	0.09	0.2
300	12	3.3	3.1	1.4	-	4	0.6	0.08	0.15
350	14	3	3	1.2	-	4	0.5	0.08	0.15
400	16	1.1	2.5	1	-	3.5	0.4	0.08	0.1
450	18	1	3.5	0.9	-	3.5	0.4	0.08	0.1
500	20	3.5	4.5	0.75	-	3	0.3	0.06	0.1
550	22	3.5	4.5	-	-	3	0.3	0.06	0.1
600	24	2.8	4.2	-	-	0.4	0.2	0.05	0.1

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; Inc = Inconel; Ni = Nickel; Mo = Monel; Has = Hastelloy; Al = Aluminium