



Safety is for life.™

## PRODUCT INFORMATION



# KUB®

## Reverse acting rupture disc

### THE WORLD'S FIRST REUSABLE RUPTURE DISC

KUB® is the most rugged rupture disc currently available.

KUB® is not only extremely easy to install – it is also **simple to remove and reinstall**. In addition to a **standard operating pressure ratio of up to 98%\***, the design is robust enough to cope with incorrect handling before and during installation.

The IG holder also helps in this regard. The rupture disc and holder are designed to ensure that it is impossible to insert the rupture disc incorrectly. KUB® does not use bite-type seals. Instead it uses a leak-tight, metal-on-metal seal, which allows the rupture disc to be reinstalled after inspection.

\* Depending on the specific application

Made in Germany



You can find detailed information and contact details for enquiries relating to KUB® at [www.rembe.de](http://www.rembe.de). Give us a call on: T +49 2961 7405-0 or contact us via email: [info@rembe.de](mailto:info@rembe.de).





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### For operators this means

- **Simple, quick and torque-independent installation of the rupture disc with no special tools required**
- **No risk of premature opening or damage to the rupture disc**
- **Longer service life of the rupture disc reduces the costs associated with production downtime, maintenance and replacement discs.**

Using Leonard Euler's formula, we developed a unique cut profile – known as buckling pins – for the KUB's rupture element. Careful selection of the buckling pin geometry and arrangement in combination with the material of the rupture disc offer accurate control of the response pressure of KUB. Moreover, the rupture disc is so rugged that even touching the dome of the membrane or dropping it accidentally from waist height will not affect its performance.

KUB® is the ideal solution for a wide range of challenging industrial processes with low to high operating pressures or vacuum, e.g. in liquid, gas or vapour applications as well as in two-phase flow applications. Its broad pressure spectrum allows you to equip many different processes seamlessly with just this one type of rupture disc – a major advantage: only one disc holder system is required. If the process conditions change (e.g. a different operating pressure), you can simply replace the rupture disc and continue to use the same holder. That saves money!

### Design

KUB® has a two layer design: The smooth, unblemished surface of the sealing membrane faces the process. The buckling pin element, which defines the burst pressure, faces away from the process so it does not come into contact with the medium. This is particularly useful with corrosive media. It guarantees that the rupture disc functions perfectly, prevents premature response and increases the service life of KUB®.

The sealing membrane ensures a leak-tight seal and prevents losses of the medium and contamination.

### Your advantages

- Extremely robust design ensures a **very long service life** – for fewer production standstills.
- **No rupture disc fatigue**, even at high operating ratios.
- **Broad range of pressures and nominal sizes possible**, also ideal for pure liquid applications.
- Reliable disc holder system makes it **impossible to install the REMBE® rupture disc incorrectly**. No special tools required.
- **Metal-on-metal seal** prevents gases escaping, reduces emissions and thus protects the environment.
- **Simple to install without damage**: the torque required for the flange connection is independent of the type of rupture disc used.



## REMBE® Innovation – unique in the market:

The KUB® rupture disc has a robust design and can be removed, inspected, cleaned and reinstalled. Any damage is easy to detect with the naked eye.



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



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### Technical data

Buckling Pin Element		Relieving area A <sub>0</sub>		Stainless steel		Stainless steel		Stainless steel		Stainless steel		Stainless steel		Stainless steel	
Sealing Membrane				Stainless steel		Nickel		Monel*		Hastelloy*		Titanium		Tantalum	
max. allowable temperature				400 °C		400 °C		400 °C		400 °C		300 °C		400 °C	
NPS [in]	DN [mm]	PED [cm <sup>2</sup> ]	PED [in <sup>2</sup> ]	Burst pressure [bar]											
				min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
¾"	20	3.4	0.527	3.2	130	3.5	130	3.0	130	3.5	130	5.0	130	5.0	130
1"	25	5.5	0.853	2.0	150	2.5	150	3.0	150	2.5	180	3.0	150	3.0	150
1¼"	32	9.5	1.47	2.0	135	2.0	135	2.3	135	2.0	145	2.5	135	2.5	135
1½"	40	13	2.02	1.5	140	1.5	140	2.0	140	1.5	150	2.0	140	2.0	140
2"	50	22	3.41	1.2	120	1.2	120	1.8	120	1.2	130	2.0	120	2.0	120
2½"	65	35	5.43	1.0	100	1.0	100	1.8	100	1.0	110	2.0	100	2.0	100
3"	80	50	7.75	0.50	95	0.80	95	1.0	95	0.80	100	2.0	95	1.5	95
4"	100	80	12.4	0.40	80	0.50	80	0.50	80	0.50	90	1.5	80	0.50	80
5"	125	120	18.6	0.40	60	0.40	60	0.50	60	0.40	70	1.0	60	0.50	60
6"	150	180	27.9	0.30	45	0.30	45	0.40	45	0.30	50	0.50	45	0.50	45
8"	200	280	43.4	0.30	35	0.30	35	0.40	35	0.30	40	0.40	35	0.40	35
10"	250	440	68.2	0.30	25	0.30	25	0.30	25	0.30	30	0.30	25	0.30	25
12"	300	650	101	0.20	15	0.25	15	0.20	15	0.20	18	0.20	15	0.30	25
14"	350	860	133	0.20	12	0.20	12	0.20	12	0.20	15	0.20	15	-	-
16"	400	1100	171	0.20	10	0.15	10	0.20	10	0.20	10	0.20	10	-	-
18"	450	1485	230	0.20	7.5	0.15	7.5	0.20	7.5	0.15	7.5	0.15	7.5	-	-
20"	500	1855	288	0.15	6.0	0.15	6.0	0.10	6.0	0.15	6.0	0.10	6.0	-	-
24"	600	2515	390	0.15	4.0	-	-	-	-	-	-	-	-	-	-
26"	650	3100	481	0.15	4.0	-	-	-	-	-	-	-	-	-	-
28"	700	3680	570	0.15	3.5	-	-	-	-	-	-	-	-	-	-
30"	750	4250	659	0.15	3.0	-	-	-	-	-	-	-	-	-	-
32"	800	4470	693	0.15	2.0	-	-	-	-	-	-	-	-	-	-

Buckling Pin Element		Relieving area A <sub>0</sub>		Nickel		Monel*		Hastelloy*		Titanium		Tantalum		Inconel*	
Sealing Membrane				Nickel		Monel*		Hastelloy*		Titanium		Tantalum		Inconel*	
max. allowable temperature				400 °C		420 °C		400 °C		300 °C		400 °C		600 °C	
NPS [in]	DN [mm]	PED [cm <sup>2</sup> ]	PED [in <sup>2</sup> ]	Burst pressure [bar]											
				min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
¾"	20	3.4	0.527	3.5	110	3.0	90	4.0	130	5.0	90	5.0	90	5.0	125
1"	25	5.5	0.853	2.5	100	3.0	90	3.0	200	3.0	90	3.0	90	3.0	150
1¼"	32	9.5	1.47	2.0	100	2.5	70	2.3	145	2.5	70	2.5	70	3.0	135
1½"	40	13	2.02	1.5	90	2.0	70	2.0	150	2.0	70	2.0	70	2.5	140
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2½"	65	35	5.43	1.0	70	1.8	40	1.5	110	2.0	40	2.0	40	1.5	100
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5"	125	120	18.6	0.40	30	0.50	25	1.0	70	1.0	25	0.80	25	0.80	60
6"	150	180	27.9	0.30	25	0.40	20	0.80	50	0.50	20	0.50	20	0.60	45
8"	200	280	43.4	0.30	16	0.40	12	0.50	40	0.40	12	0.40	10	0.40	35
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12"	300	650	101	0.25	10	0.20	7.0	0.30	18	0.20	7.0	0.30	4.0	0.35	15
14"	350	860	133	0.20	8.0	0.20	5.0	0.30	15	0.20	5.0	-	-	0.30	12
16"	400	1100	171	0.15	5.0	0.20	4.0	0.20	10	0.20	4.0	-	-	0.25	10
18"	450	1485	230	0.15	4.5	0.20	3.5	0.20	8.0	0.15	3.5	-	-	0.25	7.5
20"	500	1855	288	0.15	4.0	0.10	3.0	0.20	6.0	0.10	3.0	-	-	0.20	6.0
24"	600	2515	390	-	-	-	-	-	-	-	-	-	-	0.20	4.0
26"	650	3100	481	-	-	-	-	-	-	-	-	-	-	-	-
28"	700	3680	570	-	-	-	-	-	-	-	-	-	-	-	-
30"	750	4250	659	-	-	-	-	-	-	-	-	-	-	-	-
32"	800	4470	693	-	-	-	-	-	-	-	-	-	-	-	-

\*Company Names or trademarks combined with material descriptions are only used for description purposes.

The product promoted is not product of the respective companies and trademarks.

Different sizes, pressure classes, temperatures, materials and fittings available on request.