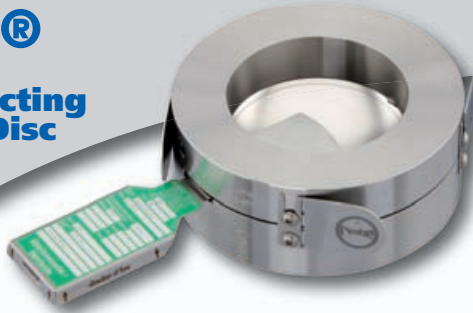


# PRODUCT INFORMATION

## PRESSURE AND VACUUM RELIEF

# IKB®

### Reverse Acting Bursting Disc



## IP Technology and Kinetics makes the fastest Bursting Disc

The IKB® Bursting disc<sup>1</sup> is a non-reclosing pressure relief device used to protect pressure equipment such as pressure vessels, piping, gas cylinders, reactors or other enclosures against excessive pressure and/or vacuum. The traditional method to protect the equipment is by using scored type single layer reverse buckling discs. These incorporate mechanically dented scored lines to weaken the disc material which assist the disc to open at the specified pressure. However, this method has several drawbacks for users, such as torque-sensitivity, corrosion risk around the score lines and unexpected opening characteristics with reduced net flow area and not least the requirement for frequent replacements.

REMBE® introduced the innovative, patented IP U.S.Pat. 7.520.153<sup>2</sup> technology, which represents the latest development in the field of reverse buckling disc designs and eliminates the problems for users created by the older technology designs made by mechanical scoring manufacturing techniques. The IP technology enables the REMBE® Engineers to introduce a defined amount of kinetic energy to the IKB® Disc. When reaching the burst pressure, the IKB® immediately releases this energy and gives full bore opening instantaneously.

The beauty with this revolutionary design is that pre-weakening scores or additional knives downstream are no longer necessary to guarantee a totally dependable and full relief. All these supporting measures are now incorporated in the dome of the disc: invisible and accelerated by kinetics = the perfect Bursting Disc!

<sup>1</sup> Definition as per DIN EN ISO 4126-2 Standard. Rupture disk is the terminology used in ASME Sec. VIII Div 1 and API Standard 520-Part1.



**REMBE®** GMBH  
SAFETY+CONTROL



### Features

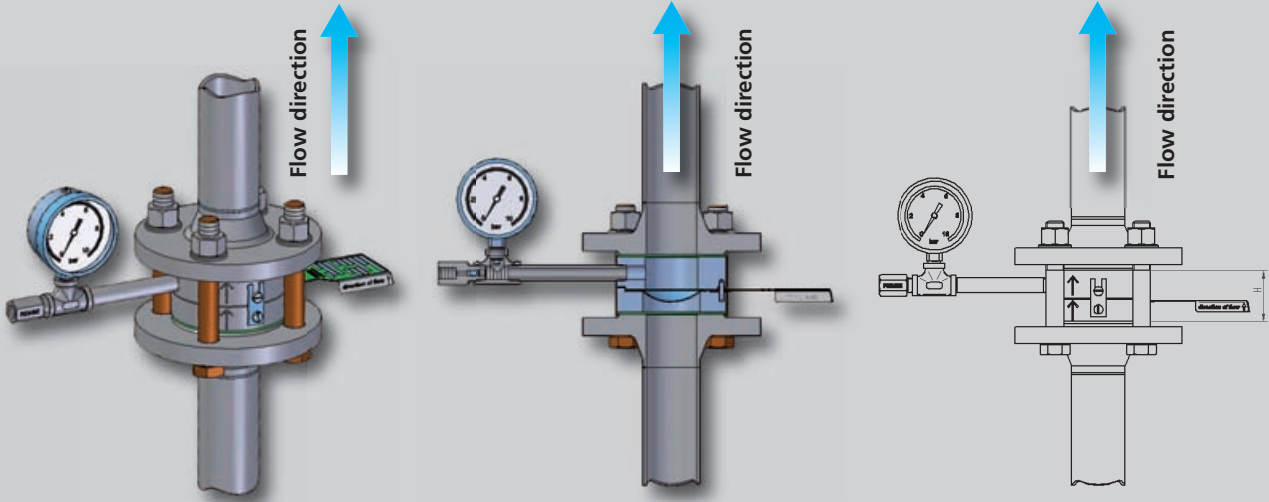
#### ...helping our Customers to switch from Conventional Scored Discs to the IKB® Reverse Acting Bursting Disc:

- Universal installation scheme: From 3/4" to 6" (DN 20 to DN 150)
- Broad Pressure Range with just one Disc Design: From 7 psi to 1,450 psi (0.5 bar to 100 bar)
- Individual Material Selection meets all Lifetime and Performance demands
- Full Temperature spectrum from -385 °F to 1,112 °F (-196 °C to +600 °C)
- Smooth Process Surface allows easy CIP / SIP
- 100% relief capacity - ultimate Safety at reasonable Cost
- Operating factor up to 90% enables Operators to maximize Process Output
- Resistant against harsh Pressure Cycles, Vacuum or excessive Torque.
- Dual use for Gases and Liquids<sup>2</sup>
- Flexible fixing Installation in REMBE®'s IG-Holder Unit

<sup>2</sup>) requires Air Cushion



## Special Feature



The IKB® safeguards Pressure Relief Valves and multiplies their life cycle.  
The non-fragmenting design allows installations upstream PRVs.

### TECHNICAL DATA

#### VENT AREA<sup>3</sup>

NPS in	effective vent area sq in	height of holder in	DN mm	effective vent area cm <sup>2</sup>	height of holder mm
0.75	0.53	1.61	20	3.40	41
1	0.85	1.81	25	5.50	46
1.5	2.02	1.81	40	13.00	46
2	3.41	2.09	50	22.00	53
3	7.75	2.36	80	50.00	60
4	12.40	2.68	100	80.00	68
6	27.90	3.15	150	180.00	80

#### PRESSURE RANGE<sup>3</sup>

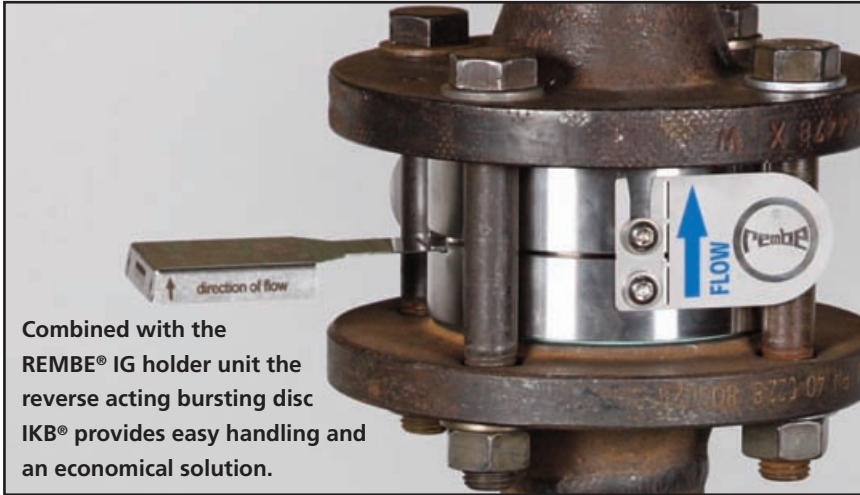
NPS in	min. burst pressure [psi]	max. burst pressure [psi]	DN	min. burst pressure [barg]	max. burst pressure [barg]
0.75	116.0	1,450	20	8.0	100
1	50.7	1,450	25	3.5	100
1.5	29.0	928	40	2.0	64
2	21.7	928	50	1.5	64
3	14.5	580	80	1.0	40
4	11.6	580	100	0.8	40
6	7.2	580	150	0.5	40

<sup>3</sup> Pressure range and vent area are as per PED certification. MNFA (ASME Sec. VIII, Div. 1) may vary.

#### MAX. RECOMMENDED TEMPERATURE<sup>4</sup>

Stainless steel (SS 316/SS316L)	+752 °F	(+400 °C)
Hastelloy C-276	+752 °F	(+400 °C)
Inconel 600	+1,112 °F	(+600 °C)
Nickel	+1,112 °F	(+600 °C)

<sup>4</sup> Temperature range for bursting disks with CE-marking may vary. Further material on request.



Combined with the REMBE® IG holder unit the reverse acting bursting disc IKB® provides easy handling and an economical solution.

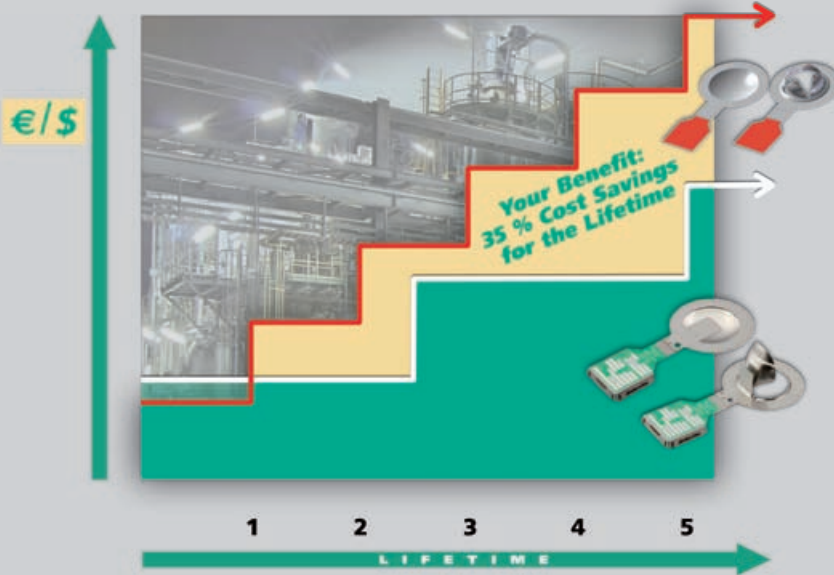
## Quality and Certifications



Design, sizing and selection of REMBE® bursting discs are carried out as per PED, DIN EN ISO 4126-2, 4126-6, AD-2000 Merkblatt A1, ASME Sec. VIII, Div. 1 and API Standard 520, Part 1 requirements (whichever applies). The bursting discs can be delivered with any certification specific to country of installation.

## Comparison of Costs: Competitor Scored Reverse Bursting Disc versus IKB® Reverse Acting Bursting Disc

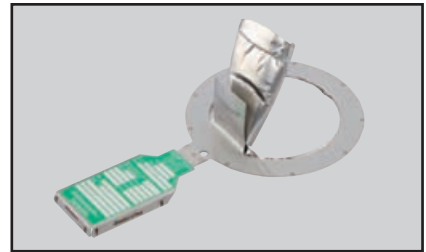
### Investment Costs



Competitor's Conventional Scored Reverse Bursting Discs are normally recommended to be replaced every 12 months.

The average lifetime of the IKB® Bursting Disc is 2.5 times greater compared with scored bursting discs. An annual replacement is not required. In case of using IKB® Bursting Disc cost savings are about 35 % for the lifetime.

Quality and lifetime performance of the IKB® Bursting Disc pay off!



## Applications

Operators from the following Industries are already successfully using the IKB® to protect their Process Equipment against excessive Overpressure:

- Chemical and Petrochemical (Containers, Pipework, Vessels)
- Food, Pharma and Biotechnology (sterile Containments, Blenders, Mixers)
- Special Machine and Equipment Manufacturing