

## Reverse buckling bursting discs, Type UX

### Benefits

- individual product specification for material, pressure and dimension
- suitable for medium and high pressure
- high corrosion and temperature stability as well as resistance to alternating pressure loads
- fully vacuum resistant and gas-tight due to solid-metal construction
- lowest leakage rates
- with integrated burst detection available

### Note

For reverse buckling bursting discs, a holder is required.

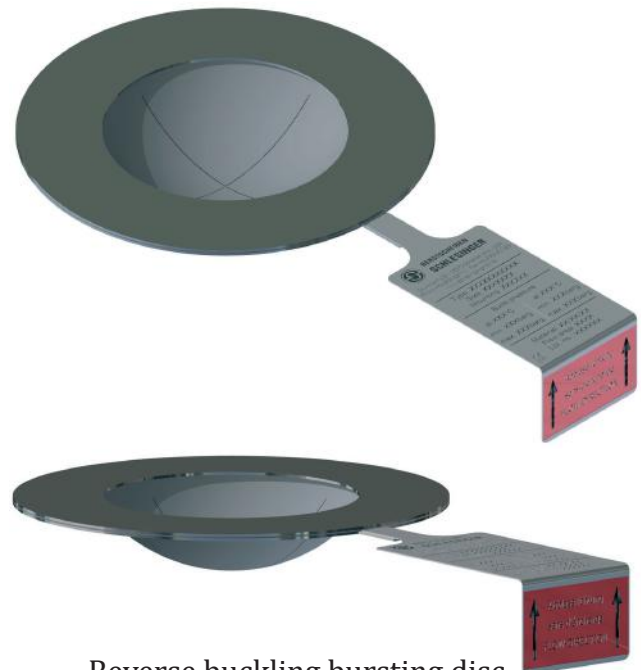
### Description

Reverse buckling bursting discs are scored, full metal components of nickel, nickel-based materials (Inconel, Hastelloy)\* or stainless steel. They are mainly used in processes with medium and high pressures, high operating temperatures and considerable pressure fluctuations.

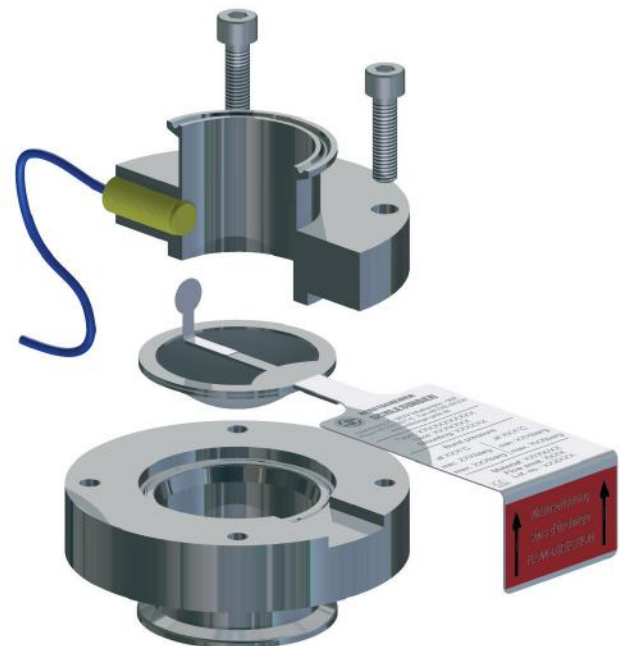
The scoring is located on the atmosphere side of the reverse buckling bursting disc, while the process facing side has a smooth finish so that adherence to the medium is prevented.

The reverse buckling bursting disc type UX ensures an immediate, complete opening cross-section whenever the pressure exceeds the permissible range during the process.

Due to its special design, our cross-scored reverse buckling bursting disc has low space requirements.



Reverse buckling bursting disc, Type UX (cross-scored)



Reverse buckling bursting disc with transmitter with inductive proximity switch in bursting disc holder Type BHS

## Installation

Our reverse buckling bursting discs are mounted in the holder directly between standard flanges according to EN1092 or ASME B16.5. Furthermore they can be used within the BHS bursting disc holder type of Berstscheiben Schlesinger GmbH. Reverse buckling bursting discs are used for their excellent properties for example in reactors, pressure vessels and gas cylinders either as sole pressure protection or in combination with a safety valve.

## Function

For releasing the pressure during the process from the permissible area, use the UX type reverse buckling bursting disc.

The principle of the Euler buckling pin is used: reverse buckling bursting discs are domed opposite to the pressure direction. Upon reaching the burst pressure the dome reverses and ruptures along the scoring.

## Technical data

### General remarks

|                             |   |
|-----------------------------|---|
| Configuration               | full metal, laser scored, domed to the medium |
| Media                       | gas, steam, liquid (gas cushion is required)  |
| Temperature range           | -196°C to +550°C                              |
| Tolerance of Burst pressure | ±10% (±5% on request)                         |

### Materials

|                 |                                  |
|-----------------|----------------------------------|
| Stainless steel | standard application             |
| Nickel          | for lowest pressures             |
| Inconel         | for high temperatures            |
| Hastelloy       | esp. corrosion resistant         |
| Tantal          | extremely resistant to corrosion |

Special materials on request

## Technical data

### Sealing materials

|                    |                            |
|--------------------|----------------------------|
| PTFE               | standard seal              |
| Klingsil*<br>C4400 | for high temperatures      |
| Graphite           | for very high temperatures |

\* Klingsil is a registered trademark

### Dimensions

|      |             |
|------|-------------|
| DN   | 15 to 400   |
| Inch | 1/2" to 16" |

### Certifications

|  |
|--|
| ATEX approval                                |
| CE marking according to Directive 2014/68 EU |
| QM-system according to ISO 9001:2015         |

### Minimum burst pressures in barü at 20 °C

### Free cross-section [mm<sup>2</sup>]

| DN  | Nickel | Stainless steel/<br>Hastelloy/<br>Inconel | minimum |
|-----|--------|---|---------|
| 15  | 5      | 10  |         |
| 20  | 4,5    | 8   | 215     |
| 25  | 3      | 6   | 385     |
| 32  | 2,5    | 3,5                                       | 650     |
| 40  | 2,5    | 3   | 900     |
| 50  | 1      | 2,5                                       | 1450    |
| 65  | 1      | 2   | 2400    |
| 80  | 1      | 2   | 3900    |
| 100 | 1      | 2   | 6350    |
| 125 | 1      | 2   |         |
| 150 | 1      | 1   | 10.500  |
| 200 | 1      | 1   | 15.500  |
| 250 | 1      | 1   | 27.000  |
| 300 | 1      | 1   |         |
| 350 | 1      | 1   |         |
| 400 | 1      | 1   |         |