

# Composite bursting discs, Type C for overpressure

#### Benefits

- individual product specification for material, pressure and dimension
- lowest burst pressure and large dimensions possible
- fragment-free opening
- available with integrated burst detection
- possible support-free mounting



With Berstscheiben Schlesinger GmbH's special composite bursting discs for overpressure, systems can be reliably backed up from 20 mbar even at low response pressures.

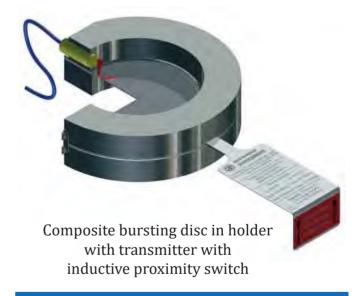
Using the latest laser technology, we cut special predetermined breaking points in foils of stainless steel, nickel, nickel-based materials (Inconel, Hastelloy)\* or tantalum with the highest precision and can set the exact bursting pressure required by our customers. We install a precisely fitted PTFE or PFA sealing diaphragm between the slotted metal foils.

### Installation

Our composite bursting discs are mounted directly between standard flanges according to EN1092 or ASME B16.5, in a holder between flanges or in a clamp threaded connector.

Since they open fragment free, they can easily be installed in front of a safety valve. In addition, we can provide our composite bursting discs with burst detection.





#### **Function**

If the pressure exceeds the permissible range during the process, the composite bursting disc ruptures. Thus the pressure can be released immediately. If the composite bursting disc is equipped with one of our signal transmitters, the response of the bursting disc is detected directly and this event is conveyed to the attached process control system.



## Technical data

| General remarks             |   |          |
|-----------------------------|---|----------|
| Configuration               | flat design, las<br>multi-layer,<br>fragment-free   |          |
| Media                       | gas, steam, liq   | uids     |
| Temperature-<br>range       | -80°C to +200°C<br>(with PTFE/PFA)<br>>200°C (only with metallic<br>sealing diaphragm and<br>fragmenting) |          |
| Tolerance of burst pressure | <0.1 barg   | ±10 mbar |
|                             | >0.1 barg   | ±10%     |

| Minimum burst pressures in barg at 20 °C |        | Free cross-<br>section<br>[mm <sup>2</sup> ] |          |
|--|--------|--|----------|
| DN                                       | Nickel | Stainless<br>steel                           | at least |
| 15                                       | 0,3    | 0,5  | 254      |
| 25                                       | 0,3    | 0,5  | 452      |
| 40                                       | 0,2    | 0,3  | 1075     |
| 50                                       | 0,1    | 0,15   | 1661     |
| 65                                       | 0,1    | 0,1  | 2733     |
| 80                                       | 0,08   | 0,08   | 4300     |
| 100                                      | 0,05   | 0,05   | 6792     |
| 125                                      | 0,04   | 0,04   | 10935    |
| 150                                      | 0,03   | 0,03   | 16512    |
| >200                                     | 0,02   | 0,02   | >27937   |

<sup>\*</sup>For materials not listed, please enquire

| Dimensions |             |
|------------|-------------|
| DN         | 15 to 900   |
| Inch       | 1/2" to 36" |

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



## Technical data

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

| Sealing materials |                            |  |
|-------------------|----------------------------|--|
| PTFE              | standard seal              |  |
| PFA               | for high temperatures      |  |
| Klingersil C4400  | for high temperatures      |  |
| Graphite          | for very high temperatures |  |