

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

Description

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.



Composite bursting disc
for overpressure protection



Composite bursting disc in holder
with transmitter with
inductive proximity switch

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, laser scored, multi-layer, fragment-free opening	
Media	gas, steam, liquids	
Temperature-range	-80°C to +200°C (with PTFE/PFA) >200°C (only with metallic sealing diaphragm and fragmenting)	
Tolerance of burst pressure	<0.1 barg	±10 mbar
	>0.1 barg	±10%

Minimum burst pressures in barg at 20 °C			Free cross-section [mm ²]
DN	Nickel	Stainless 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

*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