

# Composite bursting discs, type C for vacuum pressure

## Your benefits

- individual product specification with regard to material, pressure and dimensions
- low bursting pressures and large dimensions can be produced
- open without fragmenting
- available with integrated bursting disc detector
- installation without holder is possible

## Description

With the special composite bursting discs for vacuum pressure of Berstscheiben Schlesinger can be reliably protect systems even at low operating pressures from minus 20 mbar.

We use state-of-the-art lasers to cut special rated break points with high precision into foils of stainless steel, nickel, nickel-based materials (Inconel, Hastelloy)\* or tantal, making it possible to adjust the bursting pressure precisely to our customers' specifications. A sealing diaphragm made of PTFE or PFA is positioned precisely between the slotted metal foils.



Composite bursting discs can be installed directly between standard flanges according to EN1092 or ASME B16.5 without a holder, in a holder between flanges, or in clamp connections.

Because the foil open without fragmenting, composite bursting discs can therefore be installed easily in front of safety valves. We can also fit our composite bursting discs with a bursting disc monitoring.



composite bursting disc for vacuum pressure



Composite bursting disc in holder with inductive proximity switch

## Operation

Exits the pressure the permissible range in the process, the bursting disc ruptures and pressure is relieved.

If the bursting disc is equipped with our detector, the rupture of the bursting disc is immediately detected and transmitted this event to the internal process control system.

## Technical data

General		
execution	flat, laser slit, multilayered, opening without fragmenting	
media	gas, steam, liquid	
temperature range	-80°C till +200°C (with PTFE/PFA) >200°C (just with metal seal diaphragm → then fragmented)	
tolerance bursting pressure	<0,1 barü	±10 mbar
	>0,1 barü	±10%

Minimum bursting pressure in barü at 20 °C			Free cross-section[mm <sup>2</sup> ]
DN	nickel	stainless steel	minimum
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

\*please inquire unlisted materials

Nominal size	
DN	15 till 900
inch	1/2" till 36"

Certifications
ATEX-permission
PED 2014/68/EU
QM-system according to ISO 9001

## Technical data

Material bursting disc	
stainless steel	standard use
nickel	for low pressures
Inconel*	for high temperatures
Hastelloy*	extra corrosion-resistant
tantal	extremely corrosion-resistant

Material seal	
PTFE	standard seal
PFA	for higher temperatures
Klingsil C4400	for high temperatures
graphite	for very high temperatures

\* special materials on request.