Composite bursting discs, Type C for underpressure

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 underpressure, systems can be reliably backed up from 20 mbar even at low response pressures.

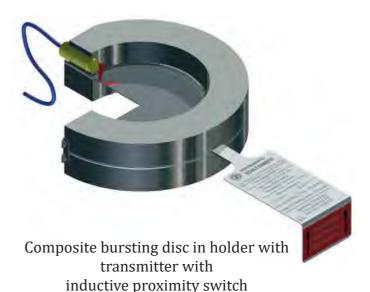
Using the latest laser technology, we cut special predetermined breaking points in foils of stainless steel, nickel, nickel-based materials (Inconel, Hastelloy)* or tantalum with the highest precision and can set the exact bursting pressure required by our customers. We install a precisely fitted PTFE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

*Incomal and Hactallov are registered trademarks@

Technical data

General remarks		
Configuration	flat design, laser scored, multi-layer, fragment-free opening	
Media	gas, steam, liq	uids
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	