BRILEX Isolation Solutions

Professionally mitigate risks.

BRILEX
HOERBIGER Safety Solutions

HOERBIGER
Brilex Gesellschaft für Explosionsschutz mbH
A Member of the HOERBIGER Group

More than 20 years of experience!
How long can you stay cool?

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USt.-Id.-Nummer: DE 161 562 004

BRILEX Isolation Solutions

BRILEX Isolation Valves

For Isolating Dust Explosions

BRILEX Explosion Diverters

Bidirectional Decoupling

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BRILEX is specialised in the production and sales of explosion venting and isolation equipment.

BRILEX Gesellschaft für Explosionsschutz mbH was established in Brilon in November 1993.
It erected its own first building, which helped considerably increase production, in 1996. Today, after two extensions to the premises, the Company now has around 5000 m² of office, production and warehouse space at its disposal.
BRILEX is currently staffed by 15 employees.

International contacts, created shortly after the company was founded, led to the first sales agencies being established in other countries. The international network has continued to grow since then and has resulted in the Company having to quickly and efficiently adapt to new markets, which it has been able to do with the help of its development and production departments.
The acquisition by HOERBIGER Holding AG and the integration into the business segment HOERBIGER Safety Solutions will leverage the international expansion of BRILEX.

BRILEX products are protective systems that safeguard production processes all over the world from the destructive power of dust explosions. The manufacture of such sensitive systems require production processes that both comply with international standards and directives and that meet the requirements set out by several different quality assurance systems. Many of the Company's explosion vents and flameless pressure relief systems have been awarded international patents.
The Company is currently working on bidirectional decoupling systems that deliver considerable flow benefits over conventional units.

BRILEX is a leading manufacturer with its unique patented explosion vent delivering 100% pressure relief capacity and its flameless relief systems utilising replacement sets that allow them to be reused after explosions.

More than 20 years of experience in the field of safety engineering has allowed the Company to specialise in the provision of protection against dust explosions. As an innovative and reliable partner, BRILEX protects its customers all over the world from the effects of dust and gas explosions. We see ourselves as a partner to our customers and we guarantee to satisfy their needs with advice, quality and reliable deliveries.

Milestones

Established in **1993**
First office and production building erected in **1996**;
sales agencies set up in other countries in the same year
Patent awarded for a explosion vent with 100% relief capacity in **1999**
Patent awarded for a reusable, flameless pressurerelief system in **2003**
Introduction of non-return valves for decoupling dust explosions in **2006**
Introduction of explosion diverter and explosion vent GE-DIV for Index bidirectional decoupling in **2015**
Acquired by HOERBIGER Holding AG and integrated into the business segment HOERBIGER Safety Solutions **2016**

The Explosion Isolation Valves RSK

In event of a dust explosion in a filter/dust collector, the explosion can travel back via the inlet ductwork to connected machinery or other plant equipment. Should an explosion be allowed to travel back to the plant, the explosion will gain significant speed and will cause catastrophic damage and can be life threatening to personal in the plant.
Ignition sources such as ember or sparks can be produced by process machinery and then be transported to filters. Filters can produce optimum conditions for dust explosions. The likelihood of an ignition source together with an optimum airborne dust concentration characterises filters / dust collectors as high-risk zones for dust explosions to occur.
Correctly designed and certified Explosion Vents in filters will protect their integrity, however an un-isolated filter inlet duct will allow a high-risk hazard to propagate back to the rest of the plant. Plant managers concerned about occupational Health and Safety as well as plant protection now have a cost effective opportunity for explosion isolation of filters compared to other products such as chemical suppression barriers, diverters and knife gate valves. With certified BRILEX Isolation Valves it is now possible to isolate filters and run the plant economically. Available sizes: DN 160 – DN 1000.

Explosion Isolation Valve RSK

- Approved Safety Device
- Suitable for organic dusts
- up to KST 300 bar m/s
- Pred max up 2,2 bar

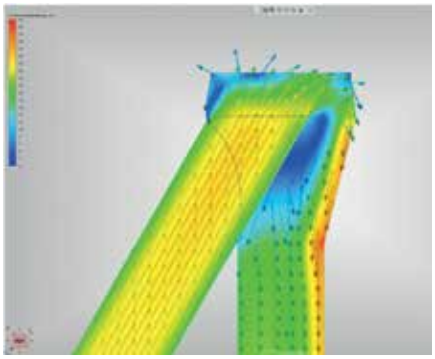
Dimensions RSK

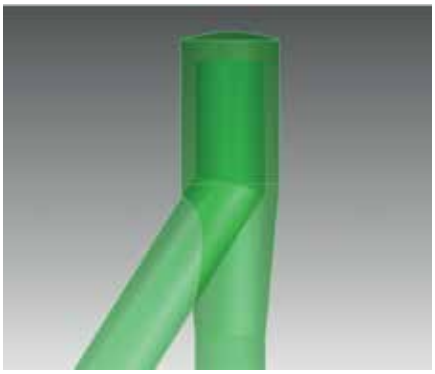
Type	DN	Max Pred	max. KSTValue	Pressure-Drop PA*
RSK 160	160	2,2 bar g	300	200
RSK 200	200	2,2 bar g	300	200
RSK 250	250	2,2 bar g	300	200
RSK 280	280	2,2 bar g	300	210
RSK 315	315	2,2 bar g	300	260
RSK 355	355	2,2 bar g	300	310
RSK 400	400	2,2 bar g	300	360
RSK 450	450	1,4 bar g	300	410
RSK 500	500	1,4 bar g	300	460
RSK 560	560	1,4 bar g	300	490
RSK 600	600	1,4 bar g	300	500
RSK 630	630	1,4 bar g	300	520
RSK 710	710	1,4 bar g	300	555
RSK 800	800	1,4 bar g	300	575
RSK 900	900	1,4 bar g	300	585
RSK 1000	1000	1,4 bar g	300	600

*flow speed 10 – 30 m/s

Decoupling of filtersystems – no problem – BRILEX Explosion Isolation Valves

The Explosion Diverter





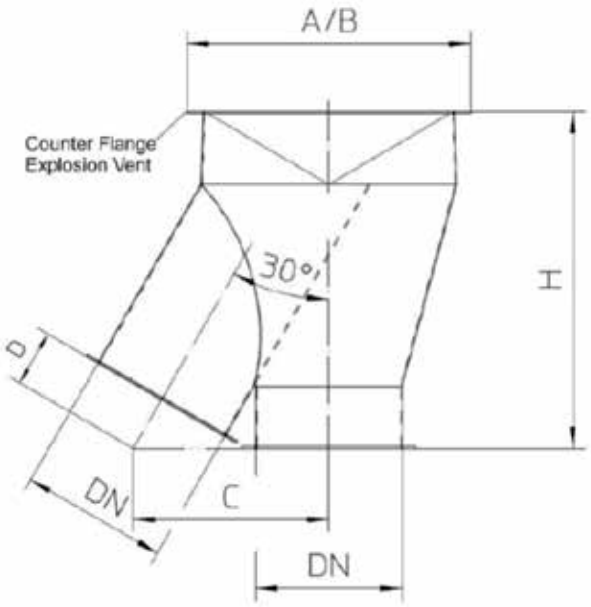
Explosion diverters were probably the first method employed to decouple dust explosions. The advantage of this method was always that it provided protection in both directions as it allowed pressure to be reliably decoupled at the explosion diverter, irrespective of whether the explosions came from the extractor or filter sides. But the method wasn‘t very effective when it came to the suppression of flames, and spreading flames facilitate the propagation of explosions and often cause serious damage. The method also produces massive pressure losses in the affected systems, which also severely restricts the widespread use of such diverters.

But DIN EN 16020:2011 has now created a way of using explosion diverters safely. The testing procedures that it specifies with the design regulations and the detailed catalogue of requirements that it contains clearly set out the demands that such diverters must satisfy, if they are to be used in protective systems.
But what can the standard deliver when massive losses of pressure in this “pipe in pipe” system put the cost-effectiveness of such diverters into question? Classical geometries defined in the standard produce pressure losses of up to 1500 PA, which would require huge additional fan performance to compensate.

However, new flow-simulation programs now make it possible to reduce pressure losses with standard-compliant designs by over 60% to 550 Pa.
This means that, technically, the loss of pressure has been reduced to the levels that can be achieved with non-return valves – which for many years have been broadly accepted as cost-effective decoupling systems.
Explosion diverters may also be employed to provide cost-effective bidirectional safety and protection.

Dimensions Explosion Diverter

DN	A/B (mm)	C (mm)	D (mm)	H (mm)
140	309/309	222	67	390
180	500/300	272	85	470
224	537/385	315	96	552
250	490/490	354	101	615
300	570/570	417	136	720
315	690/550	432	134	747,5
355	788/645	476	146	817,5
400	735/735	552	152	948
450	1000/666	610	181	1045
500	1198/690	693	215	1190
560	1000/1000	774	260	1330
630	1100/1100	869	254	1495



When the explosion can come from both sides – bidirectional Decoupling – Safety and efficiency can be combined!

The BRILEX REXS and the GE / DIV

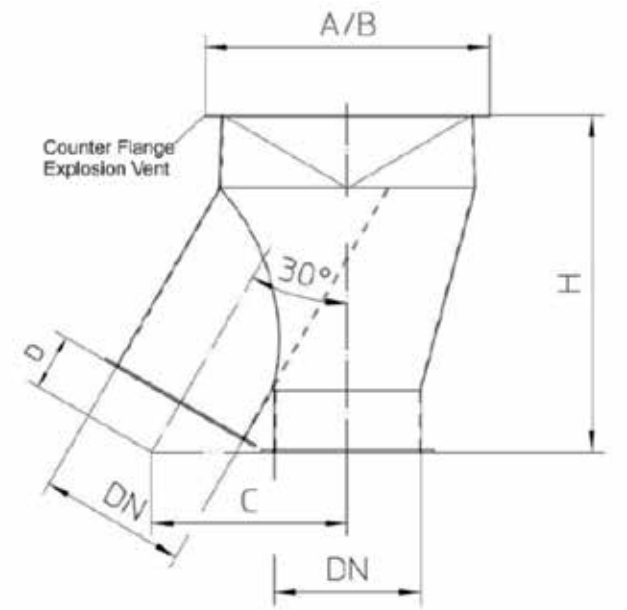
The BRILEX GE / DIV

It‘s important for explosion diverters that the mechanical integrity of the fitted explosion vent has been certified accordingly. The explosion vent must be able to withstand the extreme conditions caused by the progress of the explosion in the explosion diverter.

BRILEX GE, a rectangular explosion vent with specially shaped curvature that is resistant to vacuums and therefore delivers sufficient stability, is suitable for such applications. The explosion vent withstands severe pressure cycles without limit while providing reliable protection.

Dimensions Explosion Vent

DN Diverter	A/B (mm)	Vent Size ID	Type Vent
140	309/309	229 x 229	GE / DIV
180	500/300	220 x 420	GE / DIV
224	537/385	305 x 457	GE / DIV
250	490/490	410 x 410	GE / DIV
300	570/570	490 x 490	GE / DIV
315	690/550	470 x 610	GE / DIV
355	788/645	525 x 668	GE / DIV
400	735/735	645 x 645	GE / DIV
450	1000/666	586 x 920	GE / DIV
500	1198/690	610 x 1118	GE / DIV
560	1000/1000	920 x 920	GE / DIV
630	1100/1100	1020 x 1020	GE / DIV



When the explosion can come from both sides – bidirectional Decoupling – Safety and efficiency can be combined!

Our aim is your safety.
Over 20 years in the field of providing protection against dust explosions and the quality of our protective systems make us your innovative and competent partner to help you prevent and protect against explosions.

BRILEX
HOERBIGER Safety Solutions

BRILEX Gesellschaft für Explosionsschutz mbH, a member of the HOERBIGER Group, is one of the world's leading providers of explosion vents and flameless vents. The company based in Brilon, Germany, has 20 years of experience. BRILEX products mitigate the devastating effects of combustible dust or vapor explosions, protecting processing equipment from severe damage.
HOERBIGER Safety Solutions – Together We Save Lives!

Issue – 042016