



Your specialist for safety concepts
for explosive bulk solids

SELF-RECLOSING REUSABLE EXPLOSION DOORS AND RELATED SAFETY EQUIPMENT

MILLING AND STORAGE
IN VARIOUS INDUSTRIES



Autonomous protection
system with trace heating,
certified and type tested,
certified under
ATEX 2014/34/EU

www.thorwesten.com

THORWESTEN VENT

A TRADITION-CONSCIOUS FAMILY COMPANY WITH SPECIAL EXPERTISE AND THE LATEST PRODUCTION TECHNIQUES

Thorwesten Vent has been internationally renowned as a manufacturer of self-reclosing explosion doors for more than 40 years. The company is synonymous with serious constructional explosion protection by means of explosion venting and pressure shock resistant design. The core business of Thorwesten Vent covers the protection of grinding systems, bag filters as well as pulverized fuel silos. Our services and products range from evaluation and engineering to hardware packages that include self-reclosing explosion vents and other essential safety equipment.

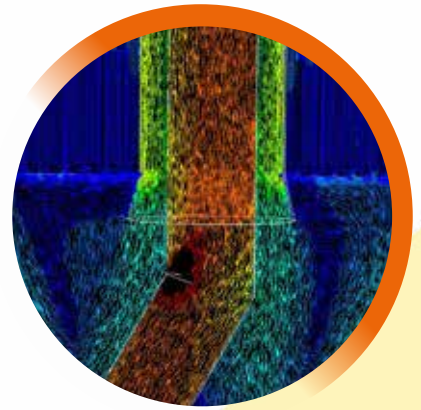


CONSTRUCTIVE EXPLOSION PROTECTION

ENGINEERING & SERVICE

Our many years of expertise in the design of constructional explosion protection concepts and the resulting consideration of the intended use in compliance with valid standards, allows us to provide our customers with optimal advice and support for new buildings and retrofits.

The retrofitting segment, in particular, presents specific challenges that can often only be overcome with a lot of experience and know-how.



COMPREHENSIVE SERVICE

- Maintenance of facilities requiring monitoring in accordance with the Industrial Safety Ordinance (BetrSichV)
- Commissioning of new facilities and retrofits
- On-site training / instruction
- Installation supervision
- Inspection of existing facilities
- Maintenance contracts
- Spare parts service



CONSTRUCTIONAL EXPLOSION
PROTECTION FOR INDUSTRIES
TYPICALLY USING COAL, ALTERNATIVE
AND SECONDARY FUELS

MILLING & STORAGE

Milling of fuels in various industries often involves explosive dust atmospheres. The taking into account of constructional explosion protection measures is therefore absolutely essential.

Constructional explosion protection is very multi-faceted. The following areas need special care:

1. Ductwork protection aiming at the effective mitigation of flame front propagation.
2. Bag house protection aiming at the entire and safe venting in accordance to the relevant rule DIN EN 14491 (Annex A).
3. Silo protection aiming at the entire and safe venting in accordance to the relevant rule DIN EN 14491 including necessary implosion protection.

Special features:

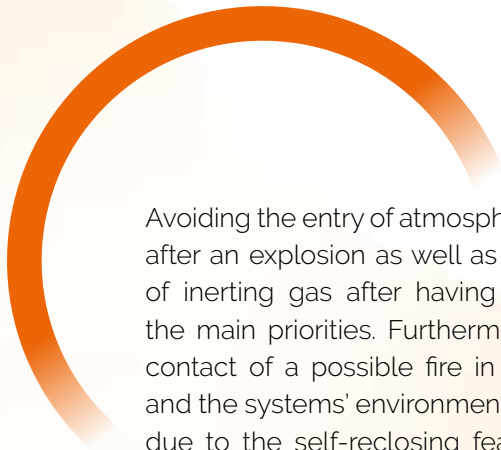
- Self-reclosing
- Reusable
- High venting efficiency
- Heat-insulating lid
- Trace heating for keeping the facility free from snow and ice



ENTIRE CONSTRUCTIONAL EXPLOSION
PROTECTION CONCEPT FOR
GRINDING PLANTS

COAL GRINDING PLANT

Avoiding the entry of atmospheric oxygen after an explosion as well as the egress of inerting gas after having vented are the main priorities. Furthermore a direct contact of a possible fire in the system and the systems' environment is avoided due to the self-reclosing feature of the explosion doors.



SUITABLE PROTECTION EQUIPMENT FOR AREAS EXPOSED TO EXPLOSION HAZARDS

DUCTWORK PROTECTION

Long ductworks between milling aggregate and bag filter require the implementation of an intelligent venting conception in order to mitigate flame front propagation effectively.



Vent #2



Vent #1



PROCESS FILTER PROTECTION

Protection of filters against negative impacts in case of an explosion in the enclosure.

SILO PROTECTION

Silo protection including
implosion protection against
negative impacts in case of an
explosion in the enclosure.



SILO ENGINEERING

Design of pressure shock
resistant silos including
accessories for explosive
bulk solids.



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