

**Fire and explosion protection
in the chemical industry**



fire protection in buildings and plants for the chemical industry

Ensure safety: What is required to ensure optimum fire protection in your buildings and plants? We determine that and draw up your individual appropriate measures.

Maybe, you want to discover, if your existing facilities fulfill all the requirements in case of fire. We will as well advise you expertly on measures to improve your buildings and plants.



Fire protection in buildings and plants

Owners and operators of buildings or plants on chemical manufacturing sites, safety and profitability are paramount. Against this background, the DMT develops comprehensive safety concepts, which are used to implement relevant guidelines in a cost-effective, individual and efficient manner.

We supervise special constructions of any kind during the planning and construction phase and pay attention to the necessary fire protection equipment or other relevant regulations.

We ensure that installations or safety engineering are properly accepted and approved. In addition, we check, for example, ventilation and fire extinguishing systems, fire detectors or smoke extraction systems for their operational safety. We test equipment and aggregates in the DMT's own test stands.

In this way, builders and operators get an accurate overall picture of the integrated building technology. All investigations correspond to the current rules. They are recognized by the supervisory authorities nationwide. In order to clarify any questions concerning the warranty or insurance cases, the test scores of the DMT can be used.

our services

fire protection concept and expert opinions

- Assessment of fire protection for storage installations for flammable liquids (regarding TRGS 509, TRGS 510 and TRGS 800)
- Fire protection certificates for chemical manufacturing sites considering realistic failure and fire scenarios, in particular leak-before-break (LBB) performance
- Dimensioning of firefighting water containments

fire protection checks

- Fire extinguishing systems
- Fire detection systems
- Smoke control devices
- Ventilation systems
- Emergency lighting and power supply

additional services

- Inertisation concepts for silos for solids
- Site management for fire protection
- Hazard assessment fire protection according to TRGS 800
- Fire protection checks
- Fire and explosion cause investigation
- Fire simulations
- Fire safety officers
- Security plans
- Real scale fire tests (up to 30 MW energy release)
- Accredited testing laboratories for fire protection
- Investigation of hazardous materials containers
- Seminars on fire and explosion protection

explosion prevention and protection

The requirement of explosion protection is not only limited on mining and production industries, but particularly in chemical manufacturing sites. Complex processes and plants work commonly with flammable gases, liquids or dusts. The aim is to perform a hazard assessment and prevent personal injury and damage to property or the environment. Accompany us on this road.

The requirements of explosion prevention concepts and system-related concepts of fire protection are the responsibility of the plant operator and have gained new significance in 2015 with the revision of the Hazardous Substances Ordinance.

Against the background that the implementation of explosion protection measures in technical systems is often associated with high investments, this offers considerable economic scope.

- Explosion Prevention for the operator
- Explosion prevention for the manufacturer
- Examination of explosion safety

In accordance with the Hazardous Substances Ordinance, the plant operator must specifically identify hazards that can arise from hazardous explosive mixtures and present the required protective measures in an explosion prevention document.

The heart of the explosion prevention document is the explosion protection concept, which sets out the provisions for achieving the goals.

Within the framework of the technical and legal regulations, we create the explosion prevention concept on the basis of your information.

If you are already one step ahead in creating and optimizing your explosion prevention concept, we will advise you expertly on the implementation of the specified protective measures and assist you in the preparation of the required explosion prevention document.

our services

- Preparation of explosion prevention concepts
- Support in the preparation of explosion protection documents
- Comments on detailed questions of explosion protection
- Comments on plant related explosion protection
- Explosion protection scan as a target actual comparison
- Examination of explosion prevention concepts and documents
- Examination of the explosion safety of installations according to the German Industrial Safety Ordinance (BetrSichV)
- Advice on the implementation of the measures regarding explosion protection
- Assistance in the ignition hazard assessment of non-electrical devices, primarily for old devices
- Preparation of explosion prevention concepts to assist with conformity assessment procedures according to MaschRL and ATEX RL
- Determination of safety parameters
- Explosion cause investigation
- Seminars on explosion protection



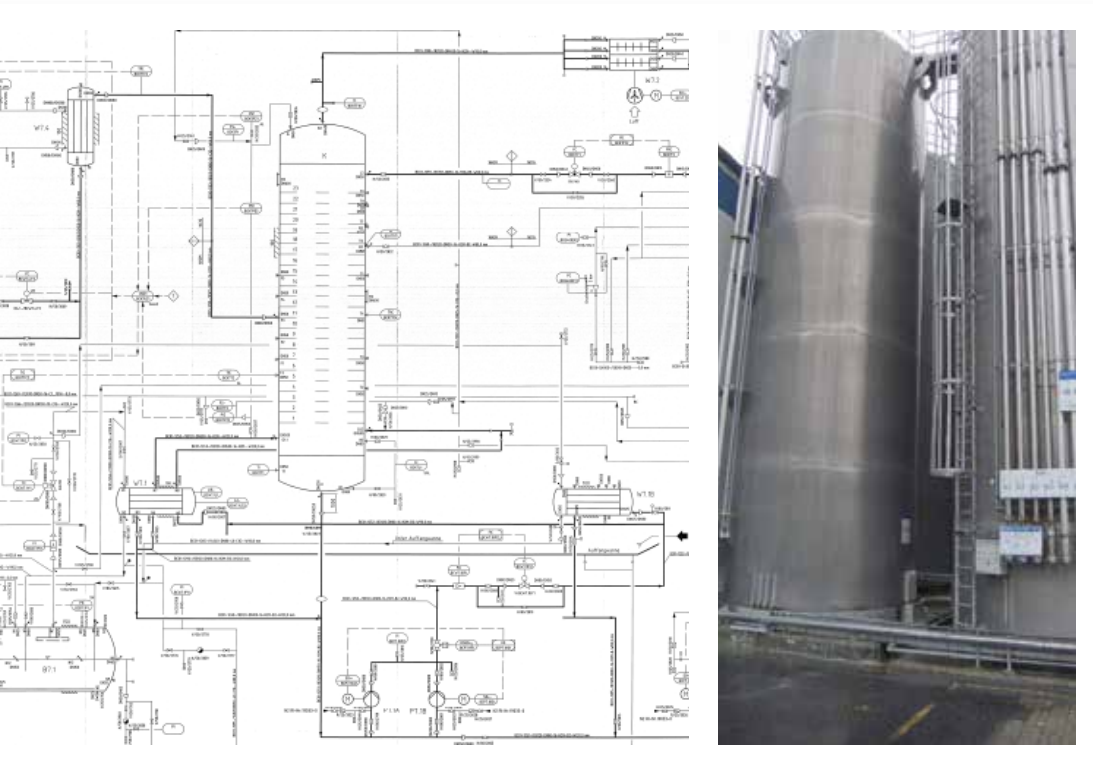
AwS-approval engineering chemical industry / extractive industry

our services

- Consultation on the approval procedures according to BImSchG / AwSV
- Participation in the risk assessments / consulting for basic engineering
- Regulatory requirements for purchasing and construction supervision
- Examination of building inspectorate and water law evidence
- Report according to § 41 (2) & (3) AwSV
- Aptitude tests according to § 42 AwSV

technical examination (§ 46 AwSV)

- Asset limitation / plant delineation
- Condition evaluation of retention areas
- Internal testing of containers, NDT, US, Floor-Scan, pressure tests pipelines, tightness tests DIN EN 1610 and DIN 1999-100
- Ratings according to TRWS 780 und 788
- Pipeline monitoring
- Functional test EMR, alarm / interlocking plans, safety relevant equipment
- Check documentation for maintenance, revision, repair, self-monitoring and third-party monitoring
- Determination of deficiencies, of measures and review



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