

Services and solutions



Risk analysis

Our expert team will assess the risks of fire and explosion in your technological processes. Our main mission is to help our clients analyze the risks they face and ensure the desired / optimal safety status of their operations and technological processes.

Our offer

DHA - Dust Hazard Analysis

Explosion protection document 1999/92/EC

External influences identification protocols

HAZOP – Hazard and Operability Study

SIL – Safety Integrity Level

Structural explosion prevention projects

Risk analysis of electrical and non-electrical equipment

Technical assistance and advice on the equipment certification process

Seminars and educational activities



Legislation



ATEX 153 - Social directive

Directive ATEX 153 (1999/92/ES) specifies the health and safety requirements for working in potentially explosive atmospheres.



ATEX 114 - Product directive

Directive ATEX 114 (2014/34/EU) specifies the requirements for equipment and protective systems in potentially explosive atmospheres.

Our team of experts is ready to consult and address your needs and requirements. Based on our know-how and experience, we can help you find the optimal safety solutions for your projects, plants and facilities.

Our services

DHA – Dust Hazard Analysis

Identification of specific scenarios, hazards and risks, including the documentation of existing protective measures that are in place to reduce these risks and an assessment of the need for additional measures. The DHA analysis is thus a useful basis for the preparation of the Explosion Protection Document according to ATEX 153 (1999/92/EC).

HAZOP – Hazard and Operability Study

HAZOP is the systematic identification of the hazardous and emergency conditions of complex processing equipment.

It is applicable to all types of processes and equipment. It can also be applied to different phases of the project or in the life cycle of any equipment or technology.

Risk analysis of electrical and non-electrical equipment

This is an assessment of the selection of the installed and operated electrical or non-electrical equipment in areas with a risk of explosion. The output is a report on the suitability of placing certain equipment in a hazardous area.

Technical assistance and advice on the equipment certification process

Consultations and advice on the certification process for equipment intended for use in potentially explosive atmospheres in accordance with ATEX 114 (2014/34/EU) and the compilation of declarations of conformity. Preparation of the risk analysis and risk assessment of machinery - the basic material for the certification of equipment.

Explosion protection document 1999/92/EC

In plants where flammable substances (gases, vapors or dusts) are used, it is necessary to assess the risk of explosion in the interior of the equipment or in its surroundings. Based on this analysis, adequate measures must be taken to reduce the risk of explosion.

SIL – Safety Integrity Level

SIL (Safety Integrity Level) builds on the HAZOP method. The aim is to provide classification for all SIF (Safety Instrumented Function) within the scope of work.

SIL is defined as the reduction in relative risk provided by a particular function.


External influences identification protocols

External influences are all the factors combined that affect the installed electrical equipment in a certain place / technology.

The Protocol on the Identification of External Influences thus classifies and specifies the conditions that determine the selection and design of the electrical equipment installed.

Structural explosion prevention projects

The design and implementation of structural blast prevention systems is carried out on the basis of a project that ensures that the optimal technical solution for the application is selected according to the applicable legislation.



Seminars and educational activities

Our work in the field includes the organization of regular seminars that focus on the danger of explosion of flammable gases, flammable liquid vapors and combustible dust, and on eliminating the risk of explosion in industrial plants.

As part of these seminars, we conduct demonstrations of the burning and explosion of combustible dust. We are ready to offer you our professional experience and will be glad to show you what combustible dust can do.



The testing laboratory VVUU, a.s., No. 1025, is accredited by the Czech Institute for Accreditation according to ČSN EN ISO/IEC 17025:2018 for tests of flammability, explosion protection and protective systems, flow, dustiness and technical acoustics, explosives and blasting equipment, explosiveness of flammable dust, PPE and mining machinery.



VVUU is notified body 1019 engaged in assessing the conformity of personal protective equipment against falls from height and slips, protective systems for use in explosive atmospheres (ATEX), explosives for civil use, and selected types of machinery for use underground.

The certification body VVUU is also accredited to certify protective and rescue equipment for working at heights, conveyor belts and flexible medium volume bags for non-hazardous materials.

VVUU has been assessing and defining fire and explosion risks for more than 70 years. VVUU, a.s. is a market leader, a company with modern and complex laboratory, testing and development facilities.

Ensuring industry safety is the clearly defined direction of the company's core activity. VVUU offers its services to all companies at risk of industrial accidents, explosions or fires.



VVUU, a.s.
Pikartská 1337/7
Ostrava – Radvanice
716 00
Czech Republic

Phone: +420 596 252 111
E-mail: vvuu@vvuu.cz
Web: www.vvuu.cz