

Nederman

IMPROVING YOUR WORKSPACE



**Safe and reliable solutions for
handling explosive dust and gases**

Explosive atmospheres – a potential risk



Explosive or potentially explosive atmospheres occur in a wide variety of workplaces where process dust comprises fine aluminium dust, organic powders or other similar substances. They can also be found where flammable gases or fumes derived from chemicals or petroleum products are present. The consequences of explosions can be extensive. Besides causing direct injuries to employees, filter systems can be ruptured and contaminated air recirculated, with subsequent health risks.

Regulations for improved workplace safety and safe equipment

From 1 July 2006, all workplaces in the European Union, new and existing, must comply with the regulations set out in the ATEX directives*. Employers are required to evaluate and classify their working environments to determine the risks. Additionally process and production equipment must meet the regulations concerning technical and legal standards.

A mandatory **EU Machinery Directive** also applies to all machines put on the European market, stipulating the manufacturer's responsibilities regarding ignition prevention and the minimization of explosion effects.

Creating a safer environment

Keep the workplace clean

The first and most important step is to minimize the occurrence of potentially explosive dust or powder by keeping the workplace clean and tidy.

Nederman offers a wide range of industrial cleaning solutions from simple, light suction appliances to heavy duty, high capacity equipment.

Use approved equipment

Sparks and static discharges can easily start an explosion. By using machines and production equipment with enclosed electronic systems and adequate earthing, risks can be reduced.

The Nederman ATEX-approved extraction arms, fans and filters are specially designed to ensure safe and efficient removal of hazardous fumes, vapours and dust.

Minimize the effects of the explosion

Risks and explosion effects can be minimized by installing the extraction equipment in a safe and correct way. This can be obtained, for example, by enclosing the equipment, or locating it in areas remote from the explosive environment.

Nederman has wide experience of providing suitable solutions. These include extraction equipment complete with safety devices that prevent the spread of fires and widespread damage.

An experienced partner



Extensive know-how and reliable products

Our expert sales personnel are fully acquainted with national and international requirements for extraction applications in explosive environments. Based on the customer's risk evaluation, we recommend suitable equipment for each application, and register details about each unit so that we can follow up all future use and ensure operational safety.

Nederman takes a holistic approach to providing safe and reliable solutions for handling explosive dust and gases. The following products, systems and services are designed to help customers minimize potential risks:

- A wide range of vacuum cleaning units and extraction equipment, such as arms, filters and fans – all designed to ATEX standards
- Design consultancy services
- Installation
- After sales customer support

* Directive 94/9/EC, also known as ATEX 95 or the ATEX Equipment Directive

ATEX stands for ATmosphere EXplosive.

The ATEX directives cover machinery, components and controls that work in explosive atmospheres. The directives require the employers to do all in their power to prevent explosions and provide protection.

Services for optimum performance

To ensure trouble-free operation after purchase, Nederman offers comprehensive service packages for all its products. Maintenance, upgrading and filter replacement routines can be customized to suit each application.

EX Evaluation Form

To simplify the evaluation of a working environment, we have designed a form for qualifying and quantifying the relevant aspects of the production process, such as:

- the type and composition of the dust
- the air flow requirements
- the required extraction system

* Directive 99/92/EC also known as ATEX 137 or the ATEX Workplace Directive

This ATEX directive states that:

· The employer must determine how often, and where, a potentially explosive atmosphere will be present. · These areas should be zoned according to the relevant specifications. · The employer must ensure only equipment of the correct category is used in a certain zone type.

Nederman solutions for safer working environments

Nederman offers safe and reliable solutions for handling explosive dust and gases. The products are designed to comply with ATEX directives. Our heavy duty stainless steel vacuum unit for stripping cargo tanks and deep well sumps in shipping are also ATEX approved by Det Norske Veritas and NEMKO.



Nederman self-retracting, high capacity hose reels for air and water.

Nederman powerful fans, designed to be used in conjunction with Nederman ATEX approved filters.

Nederman mobile high vacuum units for extraction of all types of materials.

Nederman Norclean heavy duty vacuum unit for suction of oil, water and other liquids.

Nederman Norclean heavy duty vacuum units for liquid recovery, with large storage capacity.

Nederman extraction arms in applications with extremely high hygienic demands.

Nederman stationary high vacuum units with very high capacity.

Nederman high capacity dust filters, ideal to use in food, medical or chemical industries.

Some examples of explosive substances	
• Baking flour, soup powder, spices, flavourings, sugar,	Food and feed products and processes
• Sanding/grinding dust, powder paint	Plastic manufacturing
• Sanding/grinding dust from aluminium, magnesium, titanium, chromium, etc	Metalworking industries
• Powdered substances for medicines and health care products	Pharmaceutical processes
• Powdered substances and chemicals	Chemical processes
• Sanding dust	Wood working
• Fibres, cornstarch for paper sizing and paper coating	Pulp and paper manufacturing, printing
• Gas, residual oil in well sumps	Offshore and shipping

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