

# Operators Directive

## Manufacturers Directive



### ATEX 1999/92/EC

#### ("Workers Protection" Directive)

„Minimum requirements for protecting the health and safety of employees at risk from potentially explosive atmospheres.“

Applies to companies that use, manufacture, store, process or transport flammable material.

In accordance with the potential risks European directive ATEX 1999/92/EE, also known as ATEX 137, sets out the minimum requirements for the health and safety of employees at risk from potentially explosive atmospheres.

This means that employers have to fulfil a number of obligations based on an individual assessment of the respective risks. These obligations include:

1. The prevention of the occurrence of potentially explosive atmospheres in the work zone or the avoidance of igniting potentially explosive atmospheres.
2. Carrying out a risk assessment, including the likelihood that a potentially explosive atmosphere and an ignition source could occur.
3. The classification of the work locations in zones according to the frequency and duration of the presence of a potentially explosive atmosphere. This process was already required by the framework directive (89/391EEC) previously in force.
4. Marking the zones with signs in the entrance area. (Example sign above)
5. Drawing up and maintaining a document on explosion protection.
6. The selection of equipment to ATEX 94/9/EC according to zones of intended use.

### ATEX 94/9/EC

#### (Manufacturers Directive)

„Equipment and safety systems for appropriate use in potentially explosive environments.“

Applies to companies which supply equipment for use in potentially explosive environments.

ATEX 1999/92/EC provides that all products which are to be used in these zones must satisfy the requirements of Directive ATEX 94/9/EC, also known as ATEX 95, (ATEX 100a).

The main purpose of the directive is to ease the free movement of goods inside the EU by harmonising the technical and legal standards according to which equipment to be used in potentially explosive environments is manufactured.

ATEX 94/9/EC places equipment in three categories according to the respective level of protection applied. These satisfy the requirements of ATEX 1999/92/EC:

- Category 1 – Very high safety requirement
- Category 2 – High safety requirement
- Category 3 – Standard safety requirement

The category number is followed by a G (gas, vapour/mist), if the piece of equipment is intended for use in zone 0, 1 or 2, and by a D (dust), if it is intended for use in zones 20, 21 or 22.

### Zone 1

Zone in which during normal operation a potentially explosive atmosphere in the form of a mixture of air and flammable gases, vapours or mists can occasionally occur.

Category 2G

### Zone 2

Zone in which during normal operation a potentially explosive atmosphere in the form of a mixture of air and flammable gases, vapours or mists can normally not or only briefly occur.

Category 3G

### Zone 21

Zone in which during normal operation a potentially explosive atmosphere in the form of cloud of flammable dust carried in the air can occasionally occur.

Category 2D

### Zone 22

with electrically conductive dust

Zone in which during normal operation a potentially explosive atmosphere in the form of cloud of flammable dust carried in the air can normally not or only briefly occur.

Category 2D

### Zone 22

Zone in which during normal operation a potentially explosive atmosphere in the form of cloud of flammable dust carried in the air can normally not or only briefly occur.

Category 3D

**ATEX applies to both suppliers and users of equipment for use in potentially explosive atmospheres in all EU member countries.**

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# Products Services



## Explosion Protection

A wide variety of businesses in many different industries are potentially at risk when manufacturing, handling, processing, storing or transporting flammable liquids, gases, dusts or powders.

Most meet or exceed their legal and moral obligations to their workforce, shareholders and society in general, being fully aware of the potentially devastating consequences of non compliance with flameproofing requirements should a mishap occur.

## Explosive Dusts

The use of powders and the creation of dust is often an everyday occurrence in numerous industries.

Dusts and powders, many of which would be regarded as inert, can and will, ignite under certain conditions and will explode when a dust cloud, at certain powder to air ratio's, is ignited. Sichelschmidt design, engineer and build forklift trucks to meet the requirements of these situations.

## Quality

Sichelschmidt is certified for quality assurance under the ATEX 94/9/EU directive and ISO 9001-2000. Regular audits are carried out by Lloyds Register, Factory Mutual, TÜV Nord and TÜV-Rheinland.

## Service

A comprehensive service network made up of branches and authorised dealers in 23 countries ensures that our customers receive fast, professional support and comprehensive maintenance.

**All machines are certified and fully CE marked by external test organisations (PTB, TÜV).**

## US market

Explosion-protected vehicles marked „EX“ are certified to UL 583 for Class1, Division 1 by Factory Mutual (FM).

Vehicles with increased safety standard marked „EE“ are certified to UL 583 by TÜV Rheinland (TUV Rheinland of North America Inc.).

## Sichelschmidt

flameproof forklift trucks will be found satisfying the requirements of thousands of users in industries ranging from Adhesives and Aerosols to Waste chemical processing and Whisky, including:- paints, printing inks, pharmaceutical, solvent, soaps, cosmetics, cars & car care products, perfumes & fragrances, chemical manufacturing & processing, food flavourings etc, etc.

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## Products

Sichelschmidt offers over 40 years of know-how in the development and production of explosion-protected industrial vehicles.

Many years of specialist research and development, meeting the needs of our clients, has enabled Sichelschmidt to design and build an impressive and unique portfolio of fully flameproof components including drive motors, pump and steering motors, control equipment enclosures and oil immersed disc brakes.

By incorporating products from within this range and utilizing the accepted industry standard flameproofing techniques, Sichelschmidt is able to build its complete range of flameproof battery electric forklifts without resorting to gas detection or other 'add on' warning systems.

This approach ensures that machines are consistently built to a high protection

standard of Gas Group 11 B, Temperature Class T4 and depending upon specification fully meet the requirements of ATEX for use in Zone 2 (3G) or the more stringent requirements for Zone 1 (2G).

Additionally, machines can be prepared to accommodate 11C gas, and dust or powder, even for the harsh environment of the off shore oil industry, where additional protection and specialized battery recharging apparatus may be necessary.