

# Explosion resistant equipment

The European Standard EN 14460:2006 has the status of a  
British Standard

ICS 13.230

## National foreword

This British Standard was published by BSI. It is the UK implementation of EN 14460:2006.

The UK participation in its preparation was entrusted to Technical Committee FSH/23, Fire precautions in industrial and chemical plant.

A list of organizations represented on FSH/23 can be obtained on request to its secretary.

### Additional information

This harmonized European Standard gives requirements for the construction of process vessels or systems in which a potentially explosive atmosphere may occur, and which are subject to explosion protection techniques.

It does not give requirements for the design of explosion protection for either electrical or non-electrical (mechanical) equipment intended for use in explosive atmospheres and should not be used for such designs.

Requirements for the explosion protection of electrical equipment intended for use in explosive atmospheres are given in the BS EN 60079 series of standards. Techniques for the explosion protection of mechanical equipment intended for use in explosive atmospheres are given in the BS EN 13463 series of standards.

Explosion protection of process vessels or systems can be achieved by the application of:

1. Venting the requirements of which are given in:
  - BS EN 14797, Explosion venting devices
  - BS EN 14491, Dust explosion venting protective systems
  - BS EN 14994, Gas explosion venting protective systems
2. Suppression the requirements of which are given in:
  - BS EN 14373, Explosion suppression systems
3. Containment the requirements of which are given in this standard.

The requirements of this standard should be applied to the construction of a process vessel or system when any of the above explosion protection techniques are applied. The essential requirement is that the vessel or system should suffer no unintended rupture. When either venting or suppression is applied explosion pressures stay relatively low, but when the chosen protection technique is Containment, it is important to understand what containment means.

Explosion containment is a technique whereby the explosion is totally sealed inside the process plant or system. The process plant or system is therefore designed so that it does not rupture under the very highest explosion pressures generated; that is, there is no escape of either flame or pressure into the surroundings.

In the application of all explosion protection methods it may be necessary to take into account isolation techniques that prevent explosions from propagating between items of process plant. Requirements for explosion isolation techniques are given in harmonized standards currently being prepared by CEN TC 305 WG 3.

It may be necessary also to take into account pressure piling effects that may occur due to flame propagation either through connecting pipelines between process vessels or through structures inside a single vessel.

Other factors specific to an installation may also need to be considered.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

**Compliance with a British Standard cannot confer immunity from legal obligations.**

### Amendments issued since publication

Amd. No.	Date	Comments

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English Version

## Explosion resistant equipment

Appareil résistant à l'explosion

Explosionsfeste Geräte

This European Standard was approved by CEN on 23 March 2006.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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