



What does ATEX mean?

Quality – reliability – efficiency



# What ATEX means...

**ATEX** is an acronym for **AT**mospheres **EX**plosible. This means hazardous, or potentially explosive, environments of various categories, both gaseous (petrochemical mainly) and dusty such as flour mills, saw mills and some food processing plants. The level of danger of an explosive condition is classified in Zones in Europe or in the USA as Classes. The table below lists the classes and their divisions.

## Zone classification

European and IEC Classification	Definition of zone or division	North American Classification
<b>Zone 0</b> (gas / vapour / mist)	<b>Category 1G</b> An explosive mixture is continuously present or present for long periods	Class I Division 1 (gases)
<b>Zone 1</b> (gas / vapour / mist)	<b>Category 2G</b> An explosive mixture is likely to occur in normal operation	Class I Division 1 (gases)
<b>Zone 2</b> (gas / vapour / mist)	<b>Category 3G</b> An explosive mixture is not likely to occur in normal operation and if it occurs it will exist only for a short time.	Class I Division 2 (gases)
<b>Zone 20</b> (dusts)	<b>Category 1D</b> An explosive mixture is continuously present or present for long periods	Class II Division 1 (dusts)
<b>Zone 21</b> (dusts)	<b>Category 2D</b> An explosive mixture is likely to occur in normal operation	Class II Division 1 (dusts)
<b>Zone 22</b> (dusts)	<b>Category 3D</b> An explosive mixture is not likely to occur in normal operation and if it occurs it will exist only for a short time.	Class II Division 2 (dusts)



# Where ATEX comes from...

The ATEX Directive was promulgated within the EU during the '90s and became UK law in 1996 and from July 2003 any equipment, electrical or mechanical, designated for use within one of the ATEX zones, must be constructed and tested to comply with the requisite ATEX standard. The ATEX standard has become the defacto standard and is recognised widely globally and in particular in China, Asia and the Middle East.



The spark to trigger an explosion can be created mechanically as easily as electrically or electrostatically and industrial fans were identified as a major source of potential ignition across a wide variety of industries. To this end an EU committee was set up to create a standard specifically for fans for use in explosive environments and Halifax Fan design personnel were invited to form a part of this advisory group and were instrumental in the formulation of the resulting ATEX regulations, now ATEX 94/9/EC, BS EN 14986:2007.

## What does ATEX mean to you?

It should be noted that ATEX is applicable not only to fans. Users and OEMs must also be aware of the implications of ATEX in respect of their own installations. A technical paper, 'Implications for Manufacturers' was presented to the Institution of Mechanical Engineers in 2003 and contains a wealth of vital information for those specifying fans for hazardous area use. It can be viewed on and downloaded from the Halifax Fan website -

[www.halifax-fan.co.uk/databank/atex](http://www.halifax-fan.co.uk/databank/atex)

## Why Halifax Fan?

One of the limitations of the ATEX regulations is that only companies with recognised quality certification are permitted to produce fans for installations requiring ATEX certification. Halifax Fan has for some time been rightly regarded as a leader in the field in the design and manufacture of ATEX fans and can produce, in the UK and China, a wide range of fans to meet the exacting specifications of the ATEX directive. Every fan is bespoke manufactured to meet exactly the needs of the application. Halifax has an installed base of thousands of ATEX fans globally and can solve your hazardous fan requirements for all explosive environment conditions. Halifax Fan is also one of the few fan companies certified to test in-house to Category 2G, Zone 1.

As part of the ATEX directive, Halifax Fan has a duty to liaise with customers and obtain particular information leading to the accurate specification of the correct category and certification to satisfy application requirements. An ATEX Fan Enquiry form ([www.halifax-fan.co.uk/databank/atex](http://www.halifax-fan.co.uk/databank/atex)) is available on our website to kick-start the enquiry process and although not mandatory, is offered for guidance and a basis for discussion.





a global force in fan technology



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