ATEX Fans

The ATEX product directive 94/9/EC governs the marketing of products used in hazardous, explosive areas.

The purpose of the directive is to protect people who work in explosives areas.

The term ATEX stands for the French abbreviation 'Atmosphere explosible' and is used as a synonym for the two European Union directives in the field of explosion protection, the ATEX Directive 94/9/EC and the ATEX Directive 1999/92/EC.

Explosive areas are divided into Zones depending on the frequency and duration of the occurrence of hazardous explosive atmospheres. The Zones are defined as shown in the table below.

Classification of explosive areas	
IG Gases	Zone 0 is an area in which explosive atmospheres as a mixture of air and flammable gases, vapours or mists are present either constantly, over long periods or frequently. The term 'frequently' is used in the send of 'most of the time', in other words, Zone 0 classification is assigned to explosive areas when an explosive atmosphere is present for more than 50% of the systems operating time. generally, this is only the case with the interior of pipes and tanks. Fans used in this area shall have casing which are explosion / pressure resistant and have both the inlets and outlets protected with flame arrestors.
2G gases 2D dust	Zone 1 is an area in which explosive atmospheres as a result of a mixture of air and flammable gases may occur occasionally during normal operative conditions, vapours or mist. If the existence of an explosive atmosphere exceeds a time period of approx. 30 minutes per year, or if this occurs occasionally, i.e. daily, but remains less than 50% of the system operating time, the area is generally considered as Zone 1.
3G gases 3D dust	Zone 2 is an area in which explosive atmospheres as a result of a mixture of air and flammable gases, vapours or mist do not normally occur or occur for a short time only during normal operating conditions. Experts generally agree that the term 'short time' corresponds to a period of approx. 30 minutes per year. It is also established that explosive atmospheres during normal operating conditions in such areas are not normally to be expected. If an explosive atmosphere occurs for a short time once per year, the area should be classified Zone 2.

Central Fans - Colasit fans are suitable for the extraction of explosive gases from Group II G (explosive groups IIA, IIB & IIC (hydrogen), in accordance with EN14986.

Zone 0	We are unable to supply Plastic fans for zone 0, as they cannot be designed to be able to withstand an internal explosion, due to the materials of construction.
Zone 1	We only supply direct drive fan units for Zone 1 applications. Fans are manufactured from Fire Retardant Anti-Static Polypropylene.
Zone 2	Both direct and V-Belt drive versions are available for Zone 2 applications. Fans are manufactured with Fire Retardant Anti-Static Polypropylene impellers with cases from Polypropylene, Fire Retardant Polypropylene, PVC or PVDF.

ATEX FANS

We supply / manufacture fans to meet the ATEX standards 2G & 3G (non-mining), 3G standard fans are all self certified by Central Fans-Colasit Ltd. All 2G standard fans are fully certified with a lodge file held by BASEEFA for a period of 10 years. End users must complete a fan application sheet (FETA) for risk assessment of standards employed.

IMPORTANT

From January 1st 2020 the new BS EN 14986: 2017 will apply to all ATEX rated Fans.
All Central Fans - Colasit's ATEX Cat 2 & Cat 3 rated fans will comply to this standard.
Our manufacturing personal will carry approval certification to carry out work to this standard.
FETA sheet completion will be mandatory defining the fan use.