

# Hazardous Locations

## ATEX Equipment Groups & Categories

### Which ATEX equipment can be used in which ATEX Category?

ATEX equipment is classified into equipment-groups. Equipment groups are divided into categories.

### ATEX Equipment Groups I & II

Equipment Group I is intended for underground mines whereas Equipment Group II is Ex Gas and Ex Dust environments other than mining.

### When is a Notified Body required?

**Equipment Groups I and II, Categories M1 and 1:** for these groups and categories, a Notified Body involvement is required. A Quality Assurance Notification (QAN) is also required in this case, except if conducting Unit Verification.

- Equipment Category M1: intended for use in underground parts of mines as well as those parts of surface installations of such mines endangered by firedamp and/or mining related combustible dust.

- Equipment Category 1: intended for use in areas in which explosive atmospheres caused by mixtures of air & gases, vapours or mists, or by air/dust mixtures are present continuously, for long periods of time, or frequently.




**Equipment Groups I and II, Categories M2 and 2:** Notified Body involvement is required in the case of internal combustion engines and electrical equipment. QAN is required in this case, except if conducting Unit Verification.

In other cases, for example *mechanical equipment* that is not an internal combustion engine or doesn't have any electrical components, the manufacturer can **Self Declare** compliance but must submit technical documentation to a Notified Body for them to acknowledge receipt and retain it. QAN is not required in this case.

**Equipment Group II, Category 3:** for this group and category, manufacturers can self declare compliance, but it is always a good idea to work with an accredited third-party to make sure to have evaluation and testing reports on hand. Equipment in this category is intended for use in areas in which explosive atmospheres caused by gases, vapours, mists, or air/dust mixtures are unlikely to occur or, if do occur, that they are likely to do so only infrequently and for a short period of time only. QAN is not required in this case.

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| ATEX – Equipment Groups & Categories                                      |           |       |   |  |         |         |
|---|-----------|-------|---|---|---------|---------|
| ATEX Zone   |           |       | Equipment   |   |         |         |
| Zone: a place in which an explosive atmosphere is...                      | ATEX Zone |       | Level of protection is assured in...                          | Category  | Marking |         |
|   | Gases     | Dusts |   |   | Gases   | Dusts   |
| Continually Present   | 0         | 20    | The event of two faults occurring independently of each other | 1   | ⊕    1G | ⊕    1D |
| Likely to occur in normal operation occasionally                          | 1         | 21    | The event of one equipment fault                              | 2   | ⊕    2G | ⊕    2D |
| Not likely to occur in normal operation and only for very short durations | 2         | 22    | Normal Operation  | 3   | ⊕    3G | ⊕    3D |