



# ATEX

## The EU Directive 94/9/EC

The Explosion Proof Directive 94/9/EC, which is called “ATEX 95” after the French designation „Atmosphère explosible“ (potentially explosive areas), has been in effect since July 1, 2003. The previous regulations concerning explosion protection were expanded in many areas, which were until then not yet touched upon. The ATEX directive applies not only to electronic devices, but also to non-electronic products and operations material.

Explosion Proof refers to dangerous explosive mixtures, which can develop not only with gas, but also with dust. Such explosive mixtures are governed by the regulation and can emerge from the following areas (among others):

- Chemical factories
- Storage tank installations and refineries
- Power stations
- Paint factories
- Medical-technical companies
- As well as in many broader industry ranges



The devices used in explosion risk areas were classified according to the ATEX 95 directive into various groups and sub-group categories. Our list takes into account only the categories for the Group II devices (= devices used in all areas with the exception of the mining industry).

The classification in categories 1, 2 and 3 follows safety specifications and the duration of the explosion danger.

Safety Specifications		
Very High Safety	High Safety	Normale Safety
Category 1	Category 2	Category 3
Constant, regularly or over a longer period of time	Occasionally	Seldom and temporary
Duration of Explosion Danger		

A device can be used in a specific zone according to its respective device category. The zone classification (Classification of Explosion Risk Areas) is defined in the regulation 1992/92/EG, which is also called “ATEX 137” in its short form.\*

\*See the note to ATEX 137 at the end of this customer information document.

The following are the created classifications:

Category 1		Category 2		Category 3	
Zone 0 (Gas)	Zone 20 (Dust)	Zone 1 (Gas)	Zone 21 (Dust)	Zone 2 (Gas)	Zone 22 (Dust)

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For identification purposes a device is classified as a part of the dust or gas material groups, and so the letter “G” for gas and “D” for dust will be noted after the corresponding category. The abbreviation 2D for example means that the device satisfies the category 2 specifications for the dust material group. The abbreviation noted can also be found on the device’s respective CE-certification.

Through the combinations noted with the defined zones it can be seen that the abbreviated code “2D” stands for a device that may be used in zone 21.

Teca-Print as a manufacturer of pad printing machines has dealt with the theme of explosion proof machines often. We can also produce non-electric devices for categories 2 and 3 upon request.

In order to do that, we would have to produce completely pneumatic pad printing machines or devices, which can be used in zones 1, 21, 2 or 22. The control of these machines is carried out via solely pneumatic components.

The pad printing machines manufactured in this way, can be certified “as explosion proof” by an external inspection authority according to the ATEX specifications.



The picture shows a completely pneumatic TPX 100 pad printing machine.

Teca-Print makes its competent advisors available for you during the entire manufacturing process, as well as during the planning phases. At the same time, we will make the arrangements for contacting the official inspection authority.

During the ATEX certification process, the complete production process will be accompanied by the external inspection authority. It requires very close cooperation between the inspection authority, system builder, and the device and component suppliers. Only then can it be guaranteed, that the regulations were properly satisfied.

We have the necessary contacts and know-how in the area of explosion proof pad printing machines. Teca-Print is your reliable partner for „all things pad printing“, including „explosive proof” technologies.

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You can find more detailed information about ATEX here:

- <http://www.explosionsschutz.ptb.de/ex-schutz-atex.htm>
- <http://ec.europa.eu/enterprise/atex/direct/newapproach.htm>
- <http://ec.europa.eu/enterprise/atex/guide/index.htm>

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Our customer information is based on the directive 94/9/EC, which governs the standards for manufacturers of devices for use in explosive areas. The standards are also known as ATEX 95. An additional specification under the name ATEX 137 applies to the manufacturers of systems for use in explosive areas (Directive 1992/92/EC).



Logo ATEX 95  
Directive 94/9/EC



Logo ATEX 137  
Directive 1992/92/EC

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