# *Personal Protective Equipment*

**Definition:**

In accordance with the definition in the European Directive 89/686/EEC of December 21st, 1989 about the approximation of the laws of the Member States related personal protective equipment:

Personal Protective Equipment (PPE) means any device or appliance designed to be worn or held by an individual for protection against one or more health and safety hazards.
PPE also covers:

- a unit constituted by several devices or appliances which have been integrally combined by the manufacturer for the protection of an individual against one or more potentially simultaneous risks
- a protective device or appliance combined, separably or inseparably, with personal non-protective equipment
  worn or held by an individual for the execution of a specific activity;
- interchangeable PPE components which are essential to its satisfactory functioning and used exclusively for such equipment.

Any system placed on the market in conjunction with PPE for its connection to another external, additional device shall be regarded as an integral part of that equipment even if the system is not intended to be worn or held permanently by the user for the entire period of risk exposure

This European Directive has been transformed into national law since 1 January 1993 (Ordinance No. 92-765, 29 July 1992)

**Categories**

There are 3 categories for PPE:

- **Category 1 :** minor hazards = small mechanical pushes, sun radiation
- **Category 2 :** serious hazards
- **Category 3 :** greater or mortal hazards

It is consequently mainly the PPE of category 3 which are of interest for rescue operations from particularly endangered areas.

PPE category 3 comprises all equipment which are designed to protect from falls from heights. These devices contain the belts and accessories which is intended to link a person with a structure with the exception of the anchorage points which are part of the structure itself

# Requirements for PPE

## Technical requirements:

The PPE must meet the essential health and safety requirements. It must be developed and produced in a manner that it guarantees the highest possible protection taking into account the ergonomic and carrying comfort needs.
To check the compliance with European standards is a method to assure that the equipment fulfils the technical requirements.

- not all products which fall under the PPE directives are described in norms
- the manufacturer can differ from the norm, if he has a technical solution which is even more suitable to cope with the special situation and legal requirements.

## Requirements for the inspection :

- **Category 1** : minor hazards = self-certification by the manufacturer
- **Category 2 :** serious hazards = EC-Type examination
- **Category 3 :** greater or mortal hazards = EC-Type examination + EC-Quality safeguarding

## Requirements for marking

The EC mark shall be affixed to each production PPE and its packaging so as to be visible, legible and indelible throughout the foreseeable useful life of that PPE.
The EC mark consists of the letters 'CE' followed by the last two figures of the year of production, serial number and fabrication number.
The EC mark shows that a product meets the requirements from the European Directive 89/686/EEC.
For the PPE of category 3 the identification of the laboratory number which safeguards quality control is mandatory

## Requirements for the information of the user

A technical description of the manufacturer must be enclosed with all PPE which comprises:

- instructions for the use, cleaning, maintenance and inspection
- details on the scope of application and on the technical exams
- indications for use with other products
- limitations of use
- the dates and periods beyond which the equipment should not be used
- a description for the following inspection (name and address of the manufacturer, serial number, production date, purchase date, date of the first use, name of the user)
- whether it is recommendable or not, that the equipment is used exclusively by one person

## Inspection of PPE

***PPE has to be inspected regularly.***
In France the ordinance from 19 March 1993 – based on the European Directive 89/656/EWG – requires that PPE is inspected regularly in a defined time period – **at least once a year**

These inspections within a defined period are required by law
- The ordinance No. 93-41, 11 January 1993, which transferred European Directive 89/656/EEC into French law, defines all organisational measures and conditions of use for the equipment and the protective means.
- The ordinance from 19 March 1993 defines the PPE which must undergo an inspection in a defined period
- The manufacturer provides the criteria and the inspection times and may also define a shorter periodical time period for the inspection.

**These inspections have the aim to assure the faultless condition of the PPE in use or stored or detect possible damage which may trigger dangerous situations.**
**All possible measures must be taken to withdraw PPE immediately from use after the duration of use defined by the manufacturer is expired.**

## Periodicity of inspections:

These intervals are defined by the manufacturer. In general inspections have to be done:

- **Before first use and personal assignment**
- **Before and after every use**
- **Every 3 months for textile products (thorough inspection)**
- **Once a year for metal products (thorough inspection)**

It is important that every user notifies the responsible person for the equipment about any recognised incidents and/or noticed defects.
The inspections must either performed by the manufacturer or a responsible person which has received training at or by the manufacturer.

The dates and results of the inspections must be stored to a safety register which comprises the following data for every article:

- The model
- The serial number
- Date of production
- Purchase date
- Date of first use
- Name of the user if PPE is assigned to one person only
- Date beyond which the equipment may not be used (if any)

## Maintanance of PPE

Generally all components of PPE must be maintained according to the following mandatory rules
- PPE may not come in contact with chemicals such as solvents or corrosive substances, etc.
- Every modification or repair must be done by the manufacturer only
- Notes of the manufacturer have to be followed
- Storage: all products have to be stored in a way that they are not pushed. The space must be properly ventilated and protected from excessive light, extreme temperatures and aggressive or corrosive substances
- Cleaning: All dirty products must be cleaned and washed with clear water and dried after which without contact with a heat source and be not exposed to the sun directly **Never use a high-pressure-cleaner.**

## Some advice

Textile products (Ropes, harness): Washing with mild-action detergent and in the machine or by hand and flush with clear water (maximum temperature 30 °C). Afterwards slowly drying without any heat source
Metal products: regularly oiling the mechanical parts (axis, feather) assures good functioning

## PPE which has to be inspected

PPE are listed in the European Directives 89/392/EEC and/or 89/686/EEC, e.g.

- Safety harness
- Round sling
- anchoring devices type B (slings)
- descending devices
- connecting devices (carabiner)
- ropes
- helmets
- shock absorbers
- safety devices
- blocking devices
- pulleys

## Organisation of the inspection

## Use of inspection forms

1.) possibility of the use the overview sheets which are on the back of the technical description which is delivered with every product and herewith creation of a safety register
2.) Use of an inspection register for PPE (see annex for example)

Main inspections to be performed:
- „History“ of the product
- safety elements
- comfort elements
- inspection of the function
- inspection of the resistance
- remarks

**Example for inspection methodology:**

The user:
Keeps the technical description which is provided by the manufacturer. Here one can find an overview sheet with model detail, serial number, production year, purchase date, date of the first use, name of the user, if the PPE is assigned to one person only and sequence of inspections carried out (date of the inspection, stamp and signature of the inspector). In fact he creates his own safety register.

The inspector:
Fills in the PPE inspection form, which he adds to a folder to be used as a reference book for the inspections carried out, and signs on the overview leaf of the user, if the product is permitted for further use. This folder serves as a safety register.

**Control of the following inspections:**

It is the aim that next inspections are carried out effectively and in due time and that one has a complete summary of the PPE to be inspected.
Therefore one has to create a folder with an overview of all PPE comprising details such as:

- which kind of product
- reference code
- Serial number
- Date of the first inspection
- Date of the next inspection
- Date beyond which the use of the product is forbidden

**Conclusion:**

A safety register allows to control the inspections of the various PPE.
A special training is necessary and mandatory for the inspection personnel.
In France this training is organised by the manufacturer who provides the inspector with a certificate of successful training for the inspection of PPE for the protection of falls from heights.

It is important to notice that **the inspector bears the sole responsibility for the inspections carried out.**

To fulfil the rescue tasks in a safe manner it is of utmost importance not only to be capable to perform the different rescue techniques but furthermore to have appropriate equipment **which proper condition is regularly controlled**