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Respiratory protective devices — Marking and information supplied by the manufacturer

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National foreword

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A list of organizations represented on this committee can be obtained on request to its secretary.

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Respiratory protective devices — Marking and information supplied by the manufacturer

*Dispositifs de protection respiratoire — Marquage et informations
fournies par le fabricant*



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ISO/TS 16974 was prepared by Technical Committee ISO/TC 94, *Personal safety — Protective clothing and equipment*, Subcommittee SC 15, *Respiratory protective devices*.

Respiratory protective devices — Marking and information supplied by the manufacturer

1 Scope

This Technical Specification gives guidance on the marking to be used on respiratory protective devices (RPD) and the information to be supplied by the manufacturer/supplier.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 7000, *Graphical symbols for use on equipment — Index and synopsis*

ISO 16972, *Respiratory protective devices — Terms, definitions, graphical symbols and units of measurement*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 7000 and ISO 16972 apply.

4 General

4.1 Levels of marking and information system used for RPD

The marking and information system required for RPD shall have the following two levels.

Level 1: RPD system

For Level 1 the manufacturer shall provide minimum marking and information, as described in Clause 5, on or with the respiratory protective device as worn by the individual.

Level 2: RPD components and replacement parts

For Level 2 the manufacturer shall provide minimum marking and information, as described in Clause 6, on some components and replacement parts. This is only applicable to the listed components and replaceable parts which are designated by the manufacturer as replaceable. Whenever feasible, this marking shall be included on each individual part. If this is not feasible, the marking shall be on the smallest commercially available package of parts.

4.2 Written information and marking

4.2.1 Written information should be at least in the official language(s) of the country of destination, or nationally recognized language(s), as accepted.

4.2.2 Written information should explain the meaning of any graphical symbols.

4.2.3 All marking and information should be readable, permanent and clearly visible.

NOTE Permanent marking is marking that cannot be removed without evidence of its removal.

4.2.4 When applicable, marking and information should be added in order to comply with national or local regulations.

4.2.5 If additional marking is required in parts of the ISO 17420 series, the system or component shall be marked accordingly.

5 Level 1: RPD system

5.1 Marking of RPD

The RPD should include at least the following marking:

- a) manufacturer name, logo or identifying mark;
- b) RPD model number, name or any other type identifying mark;
- c) reference to ISO 17420-1 or ISO 17420-2, as applicable;
- d) RPD classification;

NOTE This classification requirement will be updated in the next revision after a classification scheme has been created.

- e) means of traceability;

NOTE Format to be chosen by the manufacturer.

- f) instructions to read the information supplied by the manufacturer (which may be done using ISO graphical symbols);
- g) size designation, if applicable.

5.2 Accompanying information

In addition to 5.1, information supplied by the manufacturer should include all the information, if applicable, necessary for trained and qualified personnel on:

- a) application(s) and limitations of the RPD and warnings and cautions associated with its use;
- b) RPD model number, name or any other type identifying mark;
- c) RPD classification;
- d) assembly and operational instructions (description of pre-use checks and the mounting and orientation of RPD components and parts);
- e) meaning of graphical symbols;
- f) warning devices, such as alarms, signals, etc., related to the use of the product;
- g) storage conditions prior to use and between each use;
- h) pre-use checks (e.g. wearer seal checks, adequate airflow) and post-use checks for damage during use;
- i) compatibility with other personal protective equipment (PPE);

- j) correct donning and doffing;
- k) shelf life, which may include a shelf life indicator attached to the packaging, RPD, component or expiry date (if shelf life is associated with time, then an ISO 16972 graphical symbol which includes the year and month should be used);
- l) user maintenance, repair and inspection;
- m) correct components and replacement parts of the RPD;
- n) cleaning, disinfection and decontamination;
- o) reusability of the RPD;
- p) service life of the RPD, which may include components;
- q) contact information of the manufacturer or supplier;
- r) disposal.

This information may be contained on packaging or in the information supplied by the manufacturer (i.e. user instructions). If the RPD is reusable, instructions shall be given that the information is to be retained for the life of the RPD. In certain cases, national regulations may require certain information to be on the shipping container.

6 Level 2: RPD components and replacement parts

6.1 General information

In addition to the requirements of Clause 5, all components, as mentioned in 6.2 to 6.7, and replacement parts, as specified by the manufacturer, should contain the manufacturer name, logo or identifying mark and part number or type identifying mark.

Whenever feasible, this marking should be included on replacement parts.

If this is not feasible, the marking should be on the smallest commercially available package of replacement parts. Contact information of the manufacturer should be included.

6.2 Particle, gas/vapour or combination filters

6.2.1 Filter marking

The filter shall be marked with the following information:

- a) filter type and class (colour, mark, number, etc.);
- b) reference to ISO 17420-1, ISO 17420-2 or 17420-3, as applicable;
- c) shelf life indication, e.g. end of shelf life ISO graphical symbol in accordance with ISO 16942;
- d) means of traceability;

NOTE Format to be chosen by the manufacturer.

- e) specific requirements (e.g. single use, maximum service life, etc.);
- f) instructions to read the information supplied by the manufacturer (which may be done using ISO graphical symbols).

6.2.2 Accompanying information

In addition to 6.2.1, information supplied by the manufacturer should include all the information, if applicable, necessary for trained and qualified personnel on:

- a) application(s) and limitations of the filter, and warnings and cautions associated with its use;
- b) explanation of filtration code (colour, mark, number, etc.) and its relation to the RPD classification;
- c) assembly and operational instructions (description of pre-use checks and the mounting and orientation of the filters in the RPD for which they are designed to be used);
- d) meaning of graphical symbols;
- e) warning devices, such as alarms, signals, etc., related to the use of the filter and RPD;
- f) correct components and replacement parts of the RPD;
- g) storage conditions prior to use and between each use;
- h) explanation of the shelf life indication;

NOTE Indication may be related to time or the use of an indicator.

- i) how to estimate or determine service life of the filter(s);
- j) cleaning, disinfection and decontamination;
- k) disposal.

This information may be contained on packaging or in the information supplied by the manufacturer (i.e. user instructions). If the RPD is reusable, instructions shall be given that the information is to be retained for the life of the RPD. In certain cases, national regulations may require certain information to be on the shipping container.

6.3 Respiratory interface

6.3.1 Respiratory interface marking

The respiratory interface shall be marked with the following information:

- a) respiratory interface classification (mark, number, etc.);
- b) size, if applicable;
- c) reference to ISO 17420-1, ISO 17420-2 or 17420-3, as applicable;
- d) means of traceability;

NOTE Format to be chosen by the manufacturer.

- e) instructions to read the information supplied by the manufacturer (which may be done using ISO graphical symbols);
- f) designation of compliance with other standards (e.g. eye/face, impact resistance, etc.) on the respiratory interface, if applicable.

6.3.2 Accompanying information

In addition to 6.3.1, information supplied by the manufacturer should include all the information, if applicable, necessary for trained and qualified personnel on:

- a) application(s) and limitations of the respiratory interface and warnings and cautions associated with its use;
- b) explanation of respiratory interface classification and its relation to the RPD classification;
- c) correct components and replacement parts of the RPD;
- d) assembly and operational instructions (description of pre-use checks and the mounting and orientation of RPD components and parts);
- e) meaning of graphical symbols;
- f) warning devices, such as alarms, signals, etc., related to the use of the respiratory interface;
- g) storage conditions prior to use and between each use;
- h) shelf life information on the respiratory interface and its replacement parts, if applicable;
- i) correct donning and doffing;
- j) cleaning, disinfection and decontamination;
- k) service life of the respiratory interface, which may include components;
- l) user maintenance, repair and inspection;
- m) disposal.

This information may be contained on packaging or in the information supplied by the manufacturer (i.e. user instructions). If the RPD is reusable, instructions shall be given that the information is to be retained for the life of the RPD. In certain cases, national regulations may require certain information to be on the shipping container.

6.4 Blower unit

6.4.1 Marking

The blower unit shall be marked with the following information:

- a) means of traceability;

NOTE Format to be chosen by the manufacturer.

- b) if applicable, the blower unit should designate whether it complies with other standards or regulations (e.g. intrinsic safety, electromagnetic compatibility, etc.);
- c) instructions to read the information supplied by the manufacturer (which may be done using ISO graphical symbols).

6.4.2 Accompanying information

In addition to 6.4.1, information supplied by the manufacturer should include all the information, if applicable, necessary for trained and qualified personnel on:

- a) correct components and replacement parts of RPD and their relation to the RPD classification;
- b) assembly and operational instructions (description of pre-use checks and the mounting and orientation of RPD components and parts);
- c) meaning of graphical symbols;
- d) warning devices, such as alarms, signals, etc., related to the use of the RPD;
- e) storage conditions prior to use and between each use;
- f) shelf life information on the blower and its replacement parts, if applicable;
- g) correct donning and doffing;
- h) cleaning, disinfection and decontamination;
- i) service life of the blower, which may include components;
- j) user maintenance, repair and inspection;
- k) disposal.

This information may be contained on packaging or in the information supplied by the manufacturer (i.e. user instructions). If the RPD is reusable, instructions shall be given that the information is to be retained for the life of the RPD. In certain cases, national regulations may require certain information to be on the shipping container.

6.5 Battery and charging systems

6.5.1 Marking

The battery and charging system shall be marked with the following information:

- a) means of traceability;

NOTE Format to be chosen by the manufacturer.

- b) if applicable, the battery and its charging unit should designate whether it complies with other standards or regulations (e.g. intrinsic safety, electromagnetic compatibility, etc.);
- c) if applicable, battery shelf life information;
- d) applicable disposal graphical symbols;
- e) instructions to read the information supplied by the manufacturer (which may be done using ISO graphical symbols).

6.5.2 Accompanying information

In addition to 6.5.1, information supplied by the manufacturer should include all the information, if applicable, necessary for trained and qualified personnel on:

- a) dangers, warnings and cautions associated with battery use, transportation and charging;
- b) storage conditions prior to use and between each use;
- c) shelf life information on the battery and replacement parts, if applicable;
- d) cleaning, disinfection, and decontamination;
- e) meaning of graphical symbols;
- f) service life of the battery (which may include replacement cells or number of charging cycles);
- g) explanation of alarms, signals, etc., related to the use of the battery and the battery charging system;
- h) disposal.

This information may be contained on packaging or in the information supplied by the manufacturer (i.e. user instructions). If the RPD is reusable, instructions shall be given that the information is to be retained for the life of the RPD. In certain cases, national regulations may require certain information to be on the shipping container.

6.6 Regulators and high and low pressure hoses

6.6.1 Marking

Regulators (e.g. demand valves, pressure reducers) and high and low pressure hoses shall be marked with the following information:

- a) means of traceability;

NOTE Format to be chosen by the manufacturer.

- b) instructions to read the information supplied by the manufacturer (which may be done using ISO graphical symbols).

6.6.2 Accompanying information

In addition to 6.6.1, information supplied by the manufacturer should include all the information, if applicable, necessary for trained and qualified personnel on:

- a) dangers, warnings and cautions associated with the use of high and medium pressure devices;
- b) the permissible RPD for use with the regulator and hose;
- c) assembly and operational instructions (description of pre-use checks and the mounting and orientation of RPD components and parts and their relation to the RPD classification);
- d) meaning of graphical symbols;
- e) warning devices, such as alarms, signals, etc., related to the use of the RPD;
- f) storage conditions prior to use and between each use;

- g) shelf life information;
- h) cleaning, disinfection and decontamination;
- i) service life information;
- j) maintenance, repair and inspection;
- k) disposal.

This information may be contained on packaging or in the information supplied by the manufacturer (i.e. user instructions). If the RPD is reusable, instructions shall be given that the information is to be retained for the life of the RPD. In certain cases, national regulations may require certain information to be on the shipping container.

6.7 Cylinder-valve assembly

6.7.1 Marking

The cylinder-valve assembly shall be marked with the following information:

- a) means of traceability;

NOTE Format to be chosen by the manufacturer.

- b) if applicable, the cylinder should designate whether it complies with other standards or regulations (e.g. high pressure, etc.);
- c) instructions to read the information supplied by the manufacturer (which may be done using ISO graphical symbols).

6.7.2 Accompanying information

In addition to 6.7.1, information supplied by the manufacturer should include all the information, if applicable, necessary for trained and qualified personnel on:

- a) dangers, warnings and cautions associated with the use of high and medium pressure devices;
- b) assembly and operational instructions (description of pre-use checks and the mounting and orientation of RPD components and parts and their relation to the RPD classification);
- c) filling instructions and compatibility between gases;
- d) meaning of graphical symbols;
- e) storage conditions prior to use and between each use;
- f) shelf life information;
- g) cleaning, disinfection and decontamination;
- h) service life information;
- i) user maintenance and inspection;
- j) the need for hydrostatic testing and cylinder recertification according to national or local regulations;
- k) disposal.

This information may be contained on packaging or in the information supplied by the manufacturer (i.e. user instructions). If the RPD is reusable, instructions shall be given that the information is to be retained for the life of the RPD. In certain cases, national regulations may require certain information to be on the shipping container.

6.8 Chemical oxygen canister

6.8.1 Marking

The chemical oxygen canister shall be marked with the following information:

- a) means of traceability;

NOTE Format to be chosen by the manufacturer.

- b) instructions to read the information supplied by the manufacturer (which may be done using ISO graphical symbols).

6.8.2 Accompanying information

In addition to 6.8.1, information supplied by the manufacturer should include all the information, if applicable, necessary for trained and qualified personnel on:

- a) dangers, warnings and cautions associated with the use of chemical oxygen canisters;
- b) assembly and operational instructions (description of pre-use checks and the mounting and orientation of RPD components and parts);
- c) meaning of graphical symbols;
- d) storage conditions prior to use and, if applicable, between each use;
- e) shelf life information;
- f) service life information;
- g) user maintenance and inspection, if applicable;
- h) disposal.

This information may be contained on packaging or in the information supplied by the manufacturer (i.e. user instructions). If the RPD is reusable, instructions shall be given that the information is to be retained for the life of the RPD. In certain cases, national regulations may require certain information to be on the shipping container.

Bibliography

- [1] ISO 17420 (all parts)¹⁾, *Respiratory protective devices — Performance requirements*

1) Under preparation.

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