# SLOVENSKI STANDARD
# oSIST prEN ISO 16972:2018

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**Oprema za varovanje dihal - Definicije izrazov in piktogrami (ISO/DIS 16972:2018)**

Respiratory protective devices - Definitions of terms and pictograms (ISO/DIS 16972:2018)

Atemschutzgeräte - Definitionen von Begriffen und Piktogramme (ISO/DIS 16972:2018)

Appareils de protection respiratoire - Définitions de termes et pictogrammes (ISO/DIS 16972:2018)

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# Respiratory protective devices — Definitions of terms and pictograms

*Appareils de protection respiratoire — Définitions de termes et pictogrammes*

ICS: 13.340.30





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# Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is ISO/TC 94/SC 15 *Respiratory protective devices* and has been prepared in close cooperation with CEN/TC 79 *Respiratory protective devices.*

This second edition cancels and replaces the first edition (ISO 16972:2010), which has been technically revised.



 

# Introduction

This document has been amended by the responsible working groups within ISO/TC 94/SC 15 and CEN/TC 79 and is a consolidation of ISO 16972:2010 and EN 132:1998.

# Respiratory protective devices — Definitions of terms and pictograms

## 1 Scope

This document is applicable to respiratory protective devices except diving apparatus.

NOTE Definitions for diving apparatus are given in EN 250.

This document defines commonly used terms and definitions and specifies units of measurement to achieve a uniform interpretation and to prevent ambiguous use. It indicates graphical symbols that may be required to be placed on respiratory protective devices (RPD) or parts of RPD or instruction manuals in order to instruct the person(s) using the RPD as to its operation.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 16900-1:2014, *Respiratory protective devices — Methods of test and test equipment — Part 1: Determination of inward leakage*

ISO 16900-2:2017, *Respiratory protective devices — Methods of test and test equipment — Part 2: Determination of breathing resistance*

ISO 16900-4:2011, *Respiratory protective devices — Methods of test and test equipment — Part 4: Determination of gas filter capacity and migration, desorption and carbon monoxide dynamic testing*

ISO 16900-5:2016, *Respiratory protective devices — Methods of test and test equipment — Part 5: Breathing machine, metabolic simulator, RPD headforms and torso, tools and verification tools*

ISO 16900-6:2015, *Respiratory protective devices — Methods of test and test equipment — Part 6: Mechanical resistance/strength of components and connections*

ISO 16900-8:2015, *Respiratory protective devices — Methods of test and test equipment — Part 8: Measurement of RPD air flow rates of assisted filtering RPD*

ISO 16900-10:2015, *Respiratory protective devices — Methods of test and test equipment — Part 10: Resistance to ignition, flame, radiant heat and heat*

ISO 16900-11:2013, *Respiratory protective devices — Methods of test and test equipment — Part 11: Determination of field of vision*

ISO 16900-12:2016, *Respiratory protective devices — Methods of test and test equipment — Part 12: Determination of volume—averaged work of breathing and peak respiratory pressures*

ISO 16900-13:2015, *Respiratory protective devices — Methods of test and test equipment — Part 13: RPD using regenerated breathable gas and special application mining escape RPD: Consolidated test for gas concentration, temperature, humidity, work of breathing, breathing resistance, elastance and duration*

ISO/TS 16975-1:2016, *Respiratory protective devices — Selection, use and maintenance — Part 1: Establishing and implementing a respiratory protective device programme*

ISO/TS 16975-2:2016, *Respiratory protective devices — Selection, use and maintenance — Part 2: Condensed guidance to establishing and implementing a respiratory protective device programme*

ISO 16975-3:2017, *Respiratory protective devices — Selection, use and maintenance — Part 3: Fit—testing procedures*

SO/TS 16976-1:2015, *Respiratory protective devices — Human factors — Part 1: Metabolic rates and respiratory flow rates*

ISO/TS 16976-3:2011, *Respiratory protective devices — Human factors — Part 3: Physiological responses and limitations of oxygen and limitations of carbon dioxide in the breathing environment*

ISO/TS 16976-4:2012, *Respiratory protective devices — Human factors — Part 4: Work of breathing and breathing resistance: Physiologically based limits*

ISO/TS 16976-5:2013, *Respiratory protective devices — Human factors — Part 5: Thermal effects*

ISO/TS 16976-6:2014, *Respiratory protective devices — Human factors — Part 6: Psycho—physiological effects*

ISO/TS 16976-7:2013, *Respiratory protective devices — Human factors — Part 7: Hearing and speech*

EN 137:2006, *Respiratory protective devices — Self—contained open—circuit compressed air breathing apparatus with full face mask — Requirements, testing, marking*

EN 143:2018, *Respiratory protective devices — Particle filters — Requirements, testing, marking*

EN 144-1:2018, *Respiratory protective devices — Gas cylinder valves — Part 1: Inlet connections*

EN 12021:2014, *Respiratory equipment — Compressed gases for breathing apparatus*

EN 12941:2018, *Respiratory protective devices — Powered filtering devices incorporating a loose fitting respiratory interface — Requirements, testing, marking*

EN 12942:2018, *Respiratory protective devices — Powered filtering devices incorporating full face masks, half masks or quarter masks — Requirements, testing, marking*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

NOTE Bold type used within a definition identifies term defined elsewhere in this list of preferred terms.



 

**3.1**
**abrasive blasting respiratory protective device{ XE "abrasive blasting respiratory protective device" }**
**breathing apparatus** incorporating a protective **hood** or a **blouse** fitted with an impact resistant **visor**

Note 1 to entry: **Breathable air** is supplied to the **wearer** from a source of air not carried by the **wearer**.

**3.2**
**accessory{ XE "accessory" }**
item, or items, that are attached to the **RPD** that are not necessary for the **RPD** to meet the requirements of the ISO **RPD** performance standard and do not compromise its protection

**3.3**
**adequacy assessment{ XE "adequacy assessment" }**
selection method identifying **RPD** able to reduce the **wearers** hazard exposure to acceptable levels

**3.4**
**adequate RPD{ XE "adequate RPD" }**
**RPD** capable of reducing the inhalation exposure to an acceptable level

[SOURCE: ISO/TS 16975-1:2016, 3.1]

**3.5**
**aerodynamic diameter{ XE "aerodynamic diameter" }**
diameter of a unit density sphere having the same settling velocity as the **particle** in question

**3.6**
**aerosol{ XE "aerosol" }**
suspension of solid, liquid or solid and liquid **particles** in a gaseous medium, having a negligible falling velocity (generally considered to be less than 0,25 m/s)

**3.7**
**aerosol penetration{ XE "aerosol penetration" }**
ability of **particles** to pass through a particle filtering material

**3.8**
**air flow resistance{ XE "air flow resistance" }**
pressure difference between upstream and downstream locations caused by the flow of air through parts and components of **RPD** such as, an **exhalation valve**, **inhalation valve**, filter(s), and **tube**, etc

**3.9**
**air supply hose{ XE "air supply hose" }**
**hose** for supply of air at about atmospheric pressure

**3.10**
**ambient air bypass{ XE "ambient air bypass" }**
means to enable the **wearer** to breathe the **ambient atmosphere**, before entering and after leaving a **hazardous atmosphere**

**3.11**
**ambient air system{ XE "ambient air system" }**
device used to deliver ambient air at a **low pressure** directly to **breathable gas RPD** (manually or power assisted)

**3.12**
**ambient atmosphere{ XE "ambient atmosphere" }**
air surrounding the **RPD wearer**

**3.13**
**ambient concentration{ XE "ambient concentration" }**
concentration of a compound in the air surrounding the **RPD wearer**

**3.14**
**ambient laboratory conditions{ XE "ambient laboratory conditions" }**
atmosphere where the temperature is between 16°C and 32°C and the relative humidity is between 20% and 80%

**3.15**
**apertometer{ XE "apertometer" }**
extended hemispherical dome for measuring the angular area of the **field of vision** (**peripheral isopter**) of an **RPD** when mounted on a **headform**

[SOURCE: ISO 16900-11:2013, 3.1]

**3.16**
**as received{ XE "as received" }**
not preconditioned or modified to carry out a test

[SOURCE: EN 143:2018, 3.1.1]

**3.17**
**assigned protection factor**
**APF{ XE "assigned protection factor APF" }**
anticipated level of respiratory protection that would be provided by a properly functioning **RPD** or class of **RPD** within an effective **RPD programme**

[SOURCE: ISO/TS 16975-1:2016, 3.2]

**3.18**
**assisted filtering RPD{ XE "assisted filtering RPD" }**
**filtering RPD** where **breathable gas** is actively supplied to the **wearer** by the **RPD**

[SOURCE: ISO 16900-1:2014, 3.1]

**3.19**
**averaged interactive flow rate{ XE "averaged interactive flow rate" }**
interactive **flow rate** averaged over 10 consecutive breathing cycles of the **breathing machine**

[SOURCE: ISO 16900-8:2015, 3.3]

**3.20**
**averaged maximum interactive flow rate{ XE "averaged maximum interactive flow rate" }**
average of the highest **flow rate** within each breathing cycle of 10 consecutive breathing cycles of the **breathing machine**

[SOURCE: ISO 16900-8:2015, 3.4]

**3.21**
**averaged minimum interactive flow rate{ XE "averaged minimum interactive flow rate" }**
average of the lowest **flow rate** within each breathing cycle of 10 consecutive breathing cycles of the **breathing machine**

[SOURCE: ISO 16900-8:2015, 3.5]

**3.22**
**averaged peak interactive flow rate{ XE "averaged peak interactive flow rate" }**
average of the maximum peak **flow rate** within each breathing cycle of ten consecutive breathing cycles of the **breathing machine**

**3.23**
**blouse{ XE "blouse" }**
garment, used as a **facepiece**, which covers the head and upper part of the body to the waist and wrists and to which air is supplied

**3.24**
**body harness{ XE "body harness" }**
means to enable a **user** to wear certain components of a **respiratory protective device** (**RPD**) on the body

**3.25**
**body temperature pressure saturated{ XE "body temperature pressure saturated BTPS" }**
**BTPS**
standard condition for the expression of ventilation parameters

Note 1 to entry: Body temperature (37 °C), atmospheric pressure 101,3 kPa (760 mmHg), and water vapour pressure (6,27 kPa) in saturated air.

[SOURCE: ISO 16900-13:2015, 3.2]

**3.26**
**breakthrough concentration{ XE "breakthrough concentration" }**
concentration of test gas in effluent air at which a **gas filter** undergoing a gas **capacity** test is deemed exhausted