

**Hingamisteede kaitsevahendid.  
Sundventilatsiooniga filtreerimisseadised, millel  
on täismaskid, poolmaskid või veerandmaskid.  
Nõuded, katsetamine, märgistus**

Respiratory protective devices - Power assisted  
filtering devices incorporating full face masks, half  
masks or quarter masks - Requirements, testing,  
marking

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 12942:1999 sisaldab Euroopa standardi EN 12942:1998 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 23.11.1999 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 12942:1999 consists of the English text of the European standard EN 12942:1998.

This standard is ratified with the order of Estonian Centre for Standardisation dated 23.11.1999 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

ICS 13.340.30

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ICS 13.340.30

Supersedes EN 147:1991

Descriptors: accident prevention, personal protective equipment, respiratory protective equipment, safety masks, filters, requirements, testing, marking

English version

Respiratory protective devices - Power assisted filtering devices  
incorporating full face masks, half masks or quarter masks -  
Requirements, testing, marking

Appareils de protection respiratoire - Appareils filtrants à  
ventilation assistée avec masques complets, demi-  
masques ou quarts de masques - Exigences, essais,  
marquage

Atemschutzgeräte - Gebläsefiltergeräte mit Vollmasken,  
Halbmasken oder Viertelmasken - Anforderungen, Prüfung,  
Kennzeichnung

This European Standard was approved by CEN on 20 September 1998.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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## Foreword

This European Standard has been prepared by Technical Committee CEN/TC 79 "Respiratory protective devices", the secretariat of which is held by DIN.

This European Standard supersedes EN 147:1991.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 1999, and conflicting national standards shall be withdrawn at the latest by April 1999.

The significant difference between this European Standard and EN 147:1991 is:

- specifications for devices with gas and combined filters.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this standard.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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## Introduction

A given respiratory protective device can only be approved when its individual components satisfy the requirements of the test specification which can be a complete standard or part of a standard, and practical performance tests have been carried out successfully on a complete device where specified in the appropriate standard. If, for any reason a complete device is not tested then simulation of the device can be done provided the respiratory characteristics and weight distribution are similar to those of the complete device.

## 1 Scope

This European Standard specifies minimum requirements for power assisted respiratory protective devices which incorporate a full face mask, half mask or a quarter mask together with gas, particle or combined filter(s) used as respiratory protective devices. It does not cover devices designed for use in circumstances where there is or might be an oxygen deficiency (concentration in oxygen less than 17% by volume). Also, it does not cover respiratory protective devices designed for escape purposes.

Laboratory tests and practical performance tests are included for the assessment of compliance with the requirements.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

prEN 132:1996	Respiratory protective devices - Definitions
EN 134:1998	Respiratory protective devices - Nomenclature of components
EN 136:1998	Respiratory protective devices - Full face masks - Requirements, testing, marking
EN 140:1998	Respiratory protective devices - Half masks and quarter masks - Requirements, testing, marking
prEN 143:1997	Respiratory protective devices - Particle filters - Requirements, testing, marking
prEN 148-1:1998	Respiratory protective devices - Threads for facepieces - Standard thread connection
EN 166:1995	Personal eye protection - Specifications
EN 169:1992	Personal eye protection - Filters for welding and related techniques - Transmittance requirements and recommended utilisation
EN 170:1992	Personal eye protection - Ultraviolet filters - Transmittance requirements and recommended use
EN 171:1992	Personal eye protection - Infrared filters - Transmittance requirements and recommended use
EN 379:1994	Specification for welding filters with switchable luminous transmittance and welding filters with dual luminous transmittance
EN ISO 6941:1995	Textile fabrics - Burning behaviour - Measurement of flame spread properties of vertically oriented specimens (ISO 6941:1984, including Amendment 1:1992)
EN 50 014:1992	Electrical apparatus for potentially explosive atmospheres - General requirements

EN 50 020:1994	Electrical apparatus for potentially explosive atmospheres - Intrinsic safety 'I'
EN 60 651	Sound level meters

### 3 Definitions and description

#### 3.1 Definitions

For the purposes of this European Standard the definitions given in prEN 132:1996 and the nomenclature given in EN 134:1998 apply together with the following:

**3.1.1 power-assisted filtering device:** A device incorporating a full face mask, a half mask or a quarter mask, dependent on the ambient air and providing protection against solid, or solid and liquid aerosols of negligible volatility and decomposition, gases and vapours as specified by the manufacturer, or combinations, when fitted with particulate, gas and combined gas and particulate filters respectively. The filtering device can provide a continuous supply of air or be breath responsive.

**3.1.2 facepiece:** Any reference to a facepiece includes a full face mask, a half mask or a quarter mask.

**3.1.3 interactive flow rate:** The air flow rate resulting from the combined action of the turbo unit and a sinusoidal breathing pattern at the facepiece.

**3.1.4 manufacturer's minimum design flow rate:** The minimum flow rate as stated by the manufacturer at which the class requirements are met.

**3.1.5 manufacturer's design duration:** The time as stated by the manufacturer for which the manufacturer's minimum design flow rate is exceeded.

**3.1.6 manufacturer's minimum design condition:** The lowest level of the operating conditions of the device at which the complete device will still meet the requirements for the designated class.

**3.1.7 breath-responsive:** Actively or passively following the wearers demand for air.

#### 3.2 Description

Each device typically consists of:

- a) one (or more) filter(s) or filters through which all the air supplied to the facepiece passes;
- b) a power operated turbo unit which supplies filtered ambient air to the facepiece directly or by means of a breathing hose. The energy supply for the turbo unit can or cannot be carried on the person;
- c) a full face mask, a half mask or a quarter mask;
- d) an exhalation valve or other outlet through which exhaled air and air in excess of the wearer's demand is discharged.