

**HINGAMISVAHENDID. AVATUD TSÜKLIGA,  
VÄLISKESKKONNAST ISOLEERITUD, NITROXI JA  
HAPNIKKU KASUTAV VETTE SUKELDUMISE APARAAT.  
NÕUDED, KATSETAMINE, MÄRGISTUS**

Respiratory equipment - Open-circuit self-contained  
diving apparatus for use with compressed Nitrox and  
oxygen - Requirements, testing, marking

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 13949:2003 sisaldab Euroopa standardi EN 13949:2003 ingliskeelset teksti.	This Estonian standard EVS-EN 13949:2003 consists of the English text of the European standard EN 13949:2003.
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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

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English version

Respiratory equipment - Open-circuit self-contained diving  
apparatus for use with compressed Nitrox and oxygen -  
Requirements, testing, marking

Appareils respiratoires - Appareils de plongée autonomes à  
circuit ouvert pour une utilisation au Nitrox et à l'oxygène -  
Exigences, essai, marquage

Atemgeräte - Autonome Leichttauchgeräte mit Nitrox-  
Gasgemisch und Sauerstoff - Anforderungen, Prüfung,  
Kennzeichnung

This European Standard was approved by CEN on 21 November 2002.

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 Management Centre 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 Management Centre 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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovak Republic, Spain, Sweden, Switzerland and United Kingdom.



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## Foreword

This document (EN 13949:2003) has been prepared by Technical Committee CEN /TC 79 "Respiratory protective devices", the secretariat of which is held by DIN.

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 August 2003, and conflicting national standards shall be withdrawn at the latest by August 2003.

This document 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 document.

If this draft becomes a European Standard, 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.

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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovak Republic, Spain, Sweden, Switzerland and the United Kingdom.

## Introduction

A given self-contained open-circuit compressed Nitrox or oxygen underwater breathing apparatus can only be approved when the 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 complete apparatus where specified in the appropriate standard. If for any reason a complete apparatus is not tested then simulation of the apparatus is permitted provided the respiratory characteristics are similar to those of the complete apparatus.

## 1 Scope

This European Standard applies to self-contained open-circuit compressed Nitrox gas (oxygen content greater than 22 %) or oxygen underwater breathing apparatus (Nitrox-SCUBA).

This European Standard defines additional requirements, exceptions and tests for Nitrox- or oxygen-SCUBA to those already given in EN 250.

The object of the requirements and tests set out in this European Standard is to ensure a minimum level of safe operation for the apparatus.

## 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 (including amendments).

EN 132:1998, *Respiratory protective devices - Definitions of terms and pictograms*

EN 144-1, *Respiratory protective devices - Gas cylinder valves - Part 1: Thread connections for insert connector*

EN 144-3, *Respiratory protective devices - Gas cylinder valves - Part 3: Outlet connections for diving gases Nitrox and oxygen*

EN 250:2000, *Respiratory equipment - Open-circuit self-contained compressed air diving apparatus - Requirements, testing, marking*

## 3 Terms and Definitions

For the purposes of this European Standard the terms and definitions given in EN 132:1998 together with the following apply:

### 3.1

#### **open-circuit self-contained compressed Nitrox or oxygen underwater breathing apparatus**

apparatus which has a portable supply of compressed Nitrox and Oxygen carried by the diver, allowing him to breathe under water and exhale into the ambient water

The apparatus, when ready to use, consists of a number of compatible sub-assemblies each of which complies with the requirements of this standard. When connected together, the complete apparatus is designed to enable the wearer to breathe Nitrox and Oxygen on demand from high pressure vessel(s) via a demand regulator