

**Meditstiinilise gaasi torusüsteemid. Osa 2:
Anesteetiliste gaaside evakuatsiooni- ja
kahjutustamissüsteemid. Põhinõuded**

Medical gas pipeline systems - Part 2: Anaesthetic
gas scavenging disposal systems - Basic
requirements

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 737-2:1999 sisaldab Euroopa standardi EN 737-2:1998 + AC:2000 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 737-2:1999 consists of the English text of the European standard EN 737-2:1998 + AC:2000.</p> <p>This document is endorsed on 23.11.1999 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>Standardi käesolev osa esitab põhinõuded anesteetiliste gaaside evakuatsiooni- ja kahjutustamissüsteemide paigaldamisele, funktsioneerimisele, jõudlusele, dokumentatsioonile, testimisele ja töövalmis seadmisele, et tagada kliinilisest keskkonnast anesteetiliste gaaside ja aurude ülehulga turvaline eemaldamine ning selle kaudu patsiendi ja operaatori ohutus. Standard sisaldab põhinõudeid toiteseadmele, torusüsteemile, jõudlusele ning võtmekomponentide omavahelisele mittevahetatavusele.</p>	<p>Scope:</p>
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Võtmesõnad: gaasipaigaldised, gaasisegu jaotamine, gaasitorud, kahjutustamine, meditsiiniaparatuur, meditsiinilised gaasid, märgistus, määratlused, ohutus, sobivused, teave, tehnilised andmed, testimine, ühenduskohad

English version

Medical gas pipeline systems

Part 2: Anaesthetic gas scavenging disposal systems –
Basic requirements (includes Amendment A1 : 1999)

Systèmes de distribution de gaz
médicaux – Partie 2: Systèmes finals
d'évacuation des gaz d'anesthésie –
Règles fondamentales (amendement
A1 : 1999 inclus)

Rohrleitungssysteme für medizi-
nische Gase – Teil 2: Entsorgungs-
systeme von Anästhesiegas-Fort-
leitungssystemen – Grundlegende
Anforderungen (enthält Änderung
A1 : 1999)

This European Standard was approved by CEN on 1998-03-03 and Amendment A1 on 1999-10-28.

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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.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

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Foreword to EN 737-2 : 1998

This European Standard has been prepared by Technical Committee CEN/TC 215 'Respiratory and anaesthetic equipment', the Secretariat of which is held by BSI.

EN 737 consists of the following parts under the general title 'Medical gas pipeline systems':

Part 1: Terminal units for compressed medical gases and vacuum

Part 2: Anaesthetic gas scavenging disposal systems

Part 3: Pipelines for compressed medical gases and vacuum

Part 4: Terminal units for anaesthetic gas scavenging systems

Part 6: Dimensions of probes for terminal units for compressed medical gases and vacuum

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 the relevant EU Directive.

For relationship with this directive, see Annex ZA.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by October 1998 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

Foreword to EN 737-2 : 1998/A1 : 1999

This Amendment to EN 737-2 : 1998 has been prepared by Technical Committee CEN/TC 215 'Respiratory and anaesthetic equipment', the Secretariat of which is held by BSI.

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

This Amendment shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by June 2000 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

Introduction

This Part of this European Standard specifies basic requirements for anaesthetic gas scavenging (AGS) disposal systems.

This Part of this European Standard seeks to ensure the safe operation of anaesthetic gas scavenging systems (AGSS). The AGSS comprises three main parts, the transfer system, the receiving system and the disposal system. The receiving system and the transfer system are specified in EN 740. Type-specific connections for terminal units are specified in EN 737-4. In this Part of this European Standard specifications and test procedures are given to ensure compatibility between the components of the system.

A schematic diagram of typical anaesthetic gas scavenging systems is shown in figure 1.

1 Scope

This Part of this European Standard specifies basic requirements for the installation, function, performance, documentation, testing and commissioning of anaesthetic gas scavenging (AGS) disposal systems to ensure patient and operator safety by the safe removal of excess anaesthetic gases and vapours from the clinical environment. It includes basic requirements for the power device, pipeline system, performance and for non-interchangeability between key components.

This Part of this European standard specifies:

- a) the compatibility and safe performance between the disposal system and the other components of the AGSS by design, installation and commissioning;
- b) the use of appropriate materials;
- c) the testing of correct installation to ensure achievement of the performance intended by the manufacturer;
- d) the marking of pipeline and components.

This Part of this European Standard addresses only those disposal systems which are intended to be connected via AGSS terminal units which comply with EN 737-4 to a receiving system which complies with EN 740.

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 revision 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.

HD 384	<i>Electrical installations of buildings</i>
EN 737-3	<i>Medical gas pipeline systems - Part 3: Pipelines for compressed medical gases and vacuum - Basic requirements</i>
EN 737-4	<i>Medical gas pipeline systems - Part 4: Terminal units for anaesthetic gas scavenging systems</i>

EN 739	<i>Low pressure hose assemblies for use with medical gases</i>
EN 740	<i>Anaesthetic workstations and their modules - Particular requirements</i>
EN 1441	<i>Medical devices - Risk analysis</i>

3 Definitions

For the purposes of this Part of this European standard the following definitions apply:

3.1 AGSS Type 1 terminal unit: Connection point between the receiving system and disposal system at which an operator makes connections and disconnection.

3.2 AGSS Type 2 terminal unit: Connection point between the power device or the disposal hose and the remainder of the disposal system at which an operator makes connections and disconnections.

3.3 air compressor system: Source of supply with compressor(s) designed to provide air for breathing and/or air for driving surgical tools.

3.4 anaesthetic gas scavenging system (AGSS): System which is connected to the exhaust port(s) of an anaesthetic workstation or which is integrated into an anaesthetic workstation for the purpose of conveying expired and/or excess anaesthetic gases to an appropriate place of discharge.

NOTE: Functionally, an AGSS comprises three different parts, a transfer system, a receiving system and a disposal system. These three functionally discrete parts may be either separate or sequentially combined in part or in total. In addition, one or more parts of an AGSS may be sequentially combined with a breathing system to include the transfer system or the transfer and receiving system.

3.5 commissioning: Proof of function to verify that the agreed system specification is met and is accepted by the user or the representative of the user.

3.6 design capacity: Total flow of an AGS disposal system taking into account the diversity factor, i.e. the number of terminal units which may be in use at the same time.

3.7 disposal hose: That part of an AGSS which transfers expired and/or excess gases from the power device to the probe of an AGSS Type 2 terminal unit.