

**Masinate ohutus. Õhu kaudu levivate
ohtlike ainete emissiooni hindamine.
Osa 11: Saasteärastamise näitaja**

Safety of machinery - Evaluation of the emission of
airborne hazardous substances - Part 11:
Decontamination index

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1093-11:2002 sisaldab Euroopa standardi EN 1093-11:2001 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 16.01.2002 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1093-11:2002 consists of the English text of the European standard EN 1093-11:2001.</p> <p>This document is endorsed on 16.01.2002 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: This standard describes a method for the measurement of the decontamination index of pollution control systems e.g. capture devices including local exhaust ventilation, water spray systems and, when appropriate, separation equipment installed on a machine. This method uses the real pollutant and can be operated in room or field environments.</p>	<p>Scope: This standard describes a method for the measurement of the decontamination index of pollution control systems e.g. capture devices including local exhaust ventilation, water spray systems and, when appropriate, separation equipment installed on a machine. This method uses the real pollutant and can be operated in room or field environments.</p>
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Võtmesõnad: air, air cleaners, air cleaning equipment, cleaning capability, dangerous stuffs, definitions, efficiency, emission values, emissions, evaluations, impurities, machines, ratings, safety, selection, testing

Hinnagrupp F

ICS 13.040.40; 23.120

English version

Safety of machinery

**Evaluation of the emission of airborne hazardous
substances**

Part 11: Decontamination index

Sécurité des machines – Evaluation
de l'émission de substances
dangereuses par l'air – Partie 11:
Indice d'assainissement

Sicherheit von Maschinen – Bewer-
tung der Emission von luftgetragenen
Gefahrstoffen – Teil 11: Reinigungs-
index

This European Standard was approved by CEN on 2001-04-19.

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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.

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CEN

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

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 114 'Safety of machinery', the Secretariat of which is held by DIN.

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 EC Directive.

For relationship with this EC 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 November 2001 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.

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Introduction

This is a type B standard as specified in EN 1070. This standard is a part of EN 1093. Part 1 "Safety of machinery - Evaluation of the emission of airborne hazardous substances - Part 1: Selection of test methods" of this standard presents a selection of different methods for the evaluation of the emission of airborne hazardous substances from machines.

1 Scope

This standard describes a method for the measurement of the decontamination index of pollution control systems e. g. capture devices including local exhaust ventilation, water spray systems and, when appropriate, separation equipment installed on a machine. This method uses the real pollutant (see 4.2 of EN 1093-1 : 1998 "Safety of machinery — Evaluation of the emission of airborne hazardous substances — Part 1: Selection of test methods") and can be operated in room or field environments.

It should be observed that during the test, especially during the shutdown or the removal of the pollution control system, the concentration of hazardous substances, if present, can reach levels which are liable to incur a risk to the health of the operators or other occupants present in the room.

Warning: This standard does not deal with the protective measures required to control these risks.

Measurement of the decontamination index of pollution control system can serve for the:

- evaluation of the performance of a pollution control system of a machine;
- evaluation of the improvement of a pollution control system;
- comparison of pollution control systems for machines of similar design;
- ranking of pollution control systems according to their decontamination efficiency;
- determination of the air flow rate in the case of an exhaust system to achieve a given level;
- determination of the state of the art of pollution control systems for machines with respect to the decontamination efficiency.

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 1070, *Safety of machinery - Terminology*

ISO 3966:1977, *Measurement of fluid flow in closed conduits - Velocity area method using Pitot static tubes*

ISO 4006:1991, *Measurement of fluid flow in closed conduits - Vocabulary and symbols*

ISO 4053-1:1977, *Measurement of gas flow in conduits - Tracer methods - Part 1 : General*

ISO 5167-1:1991, *Measurement of fluid flow by means of pressure differential devices - Part 1: Orifice plates, nozzles and Venturi tubes inserted in circular cross-section conduits running full*

ISO/TR 5168:1998, *Measurement of fluid flow - Evaluation of uncertainties*

ISO 7145:1982, *Determination of flowrate of fluids in closed conduits of circular cross-section - Method of velocity measurement at one point of the cross-section*