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Garden equipment - Garden blowers, vacuums and  
blower/vacuums - Safety

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 15503:2009+A2:2015 sisaldab Euroopa standardi EN 15503:2009+A2:2015 ingliskeelset teksti.	This Estonian standard EVS-EN 15503:2009+A2:2015 consists of the English text of the European standard EN 15503:2009+A2:2015.
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EUROPEAN STANDARD

**EN 15503:2009+A2**

NORME EUROPÉENNE

EUROPÄISCHE NORM

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## Garden equipment - Garden blowers, vacuums and blower/vacuums - Safety

Matériel de jardinage - Souffleurs, aspirateurs et  
aspirateurs-souffleurs de jardin - Sécurité

Gartengeräte - Bläsergeräte, Sauggeräte und Blas-  
/Sauggeräte für den Garten - Sicherheit

This European Standard was approved by CEN on 22 September 2009 and includes Amendment 1 approved by CEN on 7 September 2013 and Amendment 2 approved by CEN on 7 November 2015.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
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**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

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## European foreword

This document (EN 15503:2009+A2:2015) has been prepared by Technical Committee CEN/TC 144 “Tractors and machinery for agriculture and forestry”, the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by June 2016, and conflicting national standards shall be withdrawn at the latest by June 2017.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document includes Amendment 1 approved by CEN on 2013-09-07 and Amendment 2 approved by CEN on 2015-11-07.

This document supersedes A2 EN 15503:2009+A1:2013 A2.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 A1 and A2 A2.

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).

A1 For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document. A1

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## Introduction

This European Standard is a type C standard as stated in EN ISO 12100.

The machinery concerned and the extent to which hazards, hazardous situations and hazardous events are covered are indicated in the scope of this document.

When provisions of this type C standard are different from those which are stated in type A or B standards, the provisions of this type C standard take precedence over the provisions of the other standards, for machines that have been designed and built according to the provisions of this type C standard.

## 1 Scope

This European Standard specifies the safety requirements and their verification for the design and construction of hand-held combustion engine powered and back-pack combustion engine powered, garden vacuums and garden blower/vacuums with or without shredding means and garden blowers, designed for one operator only. In addition, it specifies the type of information on safe working practices (including residual risks) to be provided by the manufacturer.

Throughout this European Standard the term 'machine' is used to mean all the types of garden blowers and vacuums covered by it.

This European Standard deals, with all hazards, hazardous situations and events relevant to these machines when they are used as intended and under the conditions foreseen by the manufacturer (see Clause 4), except for:

- vibration of backpack machines;
- structural integrity for blowers and blower vacuums;
- strength for harnesses and back-pack supports.

This European Standard is not applicable to:

- walk-behind, hand-guided (support-wheeled) and ride-on machines;
- mains driven and battery powered blowers and vacuums of combinations thereof;

NOTE EN 60335-1 [1] and IEC 60335-2-100 [2] give the safety requirements for mains driven blowers and blower vacuums, vacuum cleaners for household and industrial use.

This European Standard is not applicable to machines which are manufactured before the date of its publication as EN.

## 2 Normative references

**[A1]** The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies. **[A1]**

EN 1088 **[A1]** *deleted text [A1], Safety of machinery — Interlocking devices associated with guards — Principles for design and selection*

EN 14930:2007, *Agricultural and forestry machinery and gardening equipment — Pedestrian controlled and hand-held machines — Determination of accessibility of hot surfaces*

EN ISO 3744:2009, *Acoustics — Determination of sound power levels of noise sources using sound pressure — Engineering method in an essentially free field over a reflecting plane (ISO 3744:1994)*

EN ISO 4871:2009, *Acoustics — Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996)*

EN ISO 11201:2009, *Acoustics — Noise emitted by machinery and equipment — Measurement of emission sound pressure levels at a work station and at other specified positions — Engineering method in an essentially free field over a reflecting plane (ISO 11201:1995, including Cor 1:1997)*

EN ISO 12100:2010, *Safety of machinery — General principles for design — Risk assessment and risk reduction*

EN ISO 13849-1:2008, *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design (ISO 13849-1:2006)*

EN ISO 13857:2008, *Safety of machinery — Safety distances to prevent hazard zones being reached by upper and lower limbs (ISO 13857:2008)*

EN ISO 22867:2008, *Forestry machinery — Vibration test code for portable hand-held machines with internal combustion engine — Vibration at the handles (ISO 22867:2004, including Cor 1:2006)*

EN ISO 22868:2008, *Forestry machinery — Noise test code for portable hand-held machines with internal combustion engine — Engineering method (Grade 2 accuracy) (ISO 22868:2005)*

IEC 60068-2-75:1997, *Environmental testing — Part 2: Tests — Test Eh: Hammer tests*

IEC 61032:1997, *Protection of persons and equipment by enclosures — Probes for verification*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100:2010 and the following apply:

#### 3.1

##### **garden blower**

machine which moves debris by the force of blasting air

#### 3.2

##### **back-pack powered blower**

garden blower designed to have the power source carried on the operator's back by means of a supporting device consisting of a frame and harness

#### 3.3

##### **back-pack powered vacuum**

garden vacuum designed to have the power source and collector carried on the operator's back by means of a supporting device

#### 3.4

##### **debris**

organic material of vegetable origin such as leaves and grass clippings

#### 3.5

##### **debris collector**

part or combination of parts of the machine designed to contain the debris

#### 3.6

##### **dirty fan construction**

construction where the debris being collected passes the air-moving fan

#### 3.7

##### **garden vacuum**

machine which collects debris into a debris collector by means of air suction