

# SVENSK STANDARD

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### **Transportabla vägg- och wiresågsutrustningar för arbetsplatser – Säkerhet**

### **Portable wall saw and wire saw equipment for job site – Safety**

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The European Standard EN 15027:2007+A1:2009 has the status of a Swedish Standard. This document contains the official English version of EN 15027:2007+A1:2009.

This standard supersedes the Swedish Standard SS-EN 15027:2007, edition 1.

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 15027:2007+A1**

March 2009

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Supersedes EN 15027:2007

English Version

## Transportable wall saw and wire saw equipment for job site - Safety

Scies murales et scies à fil transportables de chantier -  
Sécurité

Transportable Wand- und Seilsägen für den  
Baustelleneinsatz - Sicherheit

This European Standard was approved by CEN on 7 October 2007 and includes Amendment 1 approved by CEN on 15 February 2009.

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 CEN Management Centre or to any CEN member.

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## Foreword

This document (EN 15027:2007+A1:2009) has been prepared by Technical Committee CEN/TC 151 "Construction equipment and building material machines — Safety", 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of an identical text or by endorsement, at the latest by September 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

This document includes Amendment 1, approved by CEN on 2009-02-15.

This document supersedes EN 15027:2007.

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

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 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 Annexes ZA and ZB, which are integral parts 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



## **Introduction**

This document is a type C standard as stated in EN ISO 12100-1:2003.

The machinery concerned and the extent to which hazards, hazardous situations and 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.

It is intended to revise this standard to align with changes in legislation and the availability of other European Standards in preparation.

## 1 Scope

The global description “wall saw and wire saw equipment” contains two differing types of machines for use in the construction industry, and both used to make cuts on walls, ceilings and floors composed of mineral construction materials and/or composite materials. The many different cutting tasks and choice of operating method determine the type of machine to be used for each application.

The machines may therefore be split into the following two principal classifications:

- Wall saws – exclusively rail guided – transportable.
- Wire saws – transportable.

The machines are intended for the use of diamond tools. The types of cutting tools used in conjunction with the machines as described above fall within the design and use parameters supplied by the manufacturer.

Cutting debris generated by the cutting action is removed from the cutting joint by a medium such as water directed to the cutting tool.

Machines covered by this standard may be powered by: electric motor, IC engine, electro-hydraulic drive and IC engine-hydraulic drive.

This European Standard deals with all significant hazards, hazardous situations and events relevant to wall saws and wire saws machinery, when they are used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer (see Clause 4).

This standard specifies the appropriate technical measures to eliminate or reduce risks arising from the significant hazards generated by the cutting process work cycle.

For special applications, for example, when working in potentially explosive atmospheres, additional safety requirements is necessary which are not covered by this standard.

This European Standard does not apply for wire saws intended for quarrying and stationary machining of natural stone as covered by [EN 15163](#).

This European Standard applies primarily to machines which are manufactured after the date of approval by CEN of this standard.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

[EN 573-3:2007](#), *Aluminium and aluminium alloys — Chemical composition and form of wrought products — Part 3: Chemical composition*

[EN 953](#), *Safety of machinery — Guards — General requirements for the design and construction of fixed and movable guards*

[EN 982:1996](#), *Safety of machinery — Safety requirements for fluid power systems and their components — Hydraulics*

EN 983:1996, *Safety of machinery — Safety requirements for fluid power systems and their components — Pneumatics*

EN 10111:2008 <sup>A1</sup>, *Continuously hot-rolled low carbon steel sheet and strip for cold forming — Technical delivery conditions*

EN 60204-1:2006, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements (IEC 60204-1:2005, modified)*

EN 61029-1:2000, *Safety of transportable motor-operated electric tools — Part 1: General requirements (IEC 61029-1:1990, modified)*

EN ISO 3744:1995, *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 11201:1995, *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)*

EN ISO 12100-1:2003, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology (ISO 12100-1:2003)*

EN ISO 12100-2:2003, *Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles (ISO 12100-2:2003)*

EN ISO 13732-1:2006, *Ergonomics of the thermal environment — Methods for the assessment of human responses to contact with surfaces — Part 1: Hot surfaces (ISO 13732-1:2006)*

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

EN ISO 13850:2006, *Safety of machinery — Emergency stop — Principles for design (ISO 13850:2006)*

EN ISO 13857:2008, *Safety of machinery — Safety distances to prevent hazard zones being reached by upper and lower limbs (ISO 13857:2008)* <sup>A1</sup>

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100-1:2003 and the following apply.

#### 3.1

##### **wall saw**

transportable machine utilising a diamond cutting-off wheel, for sawing primarily on walls, floors and ceilings. A wall saw is powered by an integral or an external power source as described in Clause 1. Feed and depth of cut can be adjusted/operated manually or by remote control

NOTE The components of a wall saw are shown in Figure 1.

#### 3.2

##### **wire saw**

transportable machine utilising a diamond wire, for sawing primarily on walls, floors and ceilings. A wire saw is powered by an integral or an external power source as described in Clause 1. The machine is operated by remote control

NOTE The components of a wire saw are shown in Figure 2.