



# SLOVENSKI STANDARD

## SIST EN 500-2:2000

01-april-2000

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### Mobile road construction machinery - Safety - Part 2: Specific requirements for road-milling machines

Mobile road construction machinery - Safety - Part 2: Specific requirements for road-milling machines

Bewegliche Straßenbaumaschinen - Sicherheit - Teil 2: Besondere Anforderungen an Straßenfräsen

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Machines mobiles pour la construction de routes - Sécurité - Partie 2: Exigences spécifiques pour engins de fraisage de chaussée

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Ta slovenski standard je istoveten z: **EN 500-2:1995**

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#### **ICS:**

93.080.10      Gradnja cest      Road construction

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EUROPEAN STANDARD

EN 500-2

NORME EUROPÉENNE

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September 1995

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Descriptors: roads, construction, site equipment, mobile equipment, milling cutters, safety, specifications, accident prevention, hazards, safety measure, safety devices, signalling, graphic symbol, maintenance

English version

## Mobile road construction machinery - Safety - Part 2: Specific requirements for road-milling machines

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- Sécurité - Partie 2: Exigences spécifiques  
pour engins de fraisage de chaussée

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# CEN

European Committee for Standardization  
Comité Européen de Normalisation  
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## Foreword

This European Standard was prepared by the Technical Committee CEN/TC 151 "Construction equipment and building material machines - Safety" of which the secretariat 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 EC Directive(s).

EN 500 "Mobile road construction machinery - Safety" comprises the following parts:

- Part 1: Common requirements
- Part 2: Specific requirements for road-milling machines
- Part 3: Specific requirements for soil stabilization machines
- Part 4: Specific requirements for compaction machines
- Part 5: Specific requirements for joint cutters
- Part 6: Specific requirements for paver-finishers.

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 Mars 1996, and conflicting national standards shall be withdrawn at the latest by Mars 1996.

According to the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

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## 0 Introduction

This part of EN 500 contains additional requirements to EN 500-1: 1995 "Common requirements". The clauses of this standard have the same numbering as those of EN 500-1: 1995.

## 1 Scope

This part of EN 500 specifies the safety requirements for road-milling machines as defined in clause 3 and deals with the significant hazards pertinent to road-milling machines, when used as intended and in conditions foreseen by the manufacturer.

## 2 Normative references

This draft European Standard incorporates by dated or undated references, 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.

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EN 500-1: 1995 Mobile road construction machinery - Safety - Part 1: Common requirements  
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prEN 953: 1992 Safety of machinery - General requirements for the design and construction of guards (fixed, movable) [SIST EN 500-2:2000](https://standards.iteh.ai/catalog/standards/sist/e4e0286a-36cf-4e2f-a9a0-b8388599598b/sist-en-500-2-2000)

<https://standards.iteh.ai/catalog/standards/sist/e4e0286a-36cf-4e2f-a9a0-b8388599598b/sist-en-500-2-2000>

## 3 Definitions

For the purposes of this standard the following definitions apply.

**3.1 Road-milling machines:** Mobile machines used for removing material from paved surfaces.

**3.2 Milling equipment (cutter drum):** Power-driven cylindrical bodies, on which surface the milling tools are fitted. The cutter drums rotate during the cutting operation.

## 4 List of hazards

See EN 500-1: 1995.

## 5 Safety requirements

### 5.1 Lighting

See EN 500-1: 1995.

## 5.2 Design of the machine in relation to its operation and handling

See EN 500-1: 1995.

## 5.3 Operator's station

See EN 500-1: 1995.

NOTE: Subclause 5.3.2 of EN 500-1: 1995, first indent, does not apply for road-milling machines.

## 5.4 Operator's seat

See EN 500-1: 1995.

## 5.5 Controls

See EN 500-1: 1995.

## 5.6 Starting

See EN 500-1: 1995.

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## 5.7 Stopping

See EN 500-1: 1995.

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## 5.8 Danger of falling off, access to operator's station and to service points

See EN 500-1: 1995.

## 5.9 Precautions against hazards caused by moving parts

### 5.9.1 Milling equipment

#### 5.9.1.1 General

It shall be possible to stop the milling equipment, even while the power unit (engine) is running. The milling equipment shall be safeguarded to prevent accidental physical contact and to retain debris and parts possibly ejected.

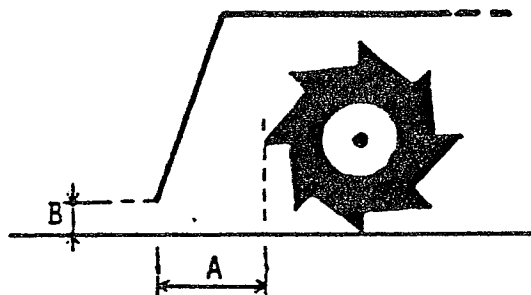
Guards shall comply with clauses 6 and 7 of prEN 953: 1992.

Guards and flaps shall remain permanently attached, even when they are opened.

#### 5.9.1.2 Rear guards

With regard to hazards present in the foot area, one of the following combinations for the dimensions A and B shall be observed (see figure 1).

Combination	A mm	B mm
1	$\geq 250$	$\leq 100$
2	$\geq 280$	$\leq 120$



**Figure 1: Cutter drum**

The dimension B may be exceeded for a short time if necessary, with regard to proper material discharge. For this purpose a built-in warning system shall be provided. This warning system shall consist of yellow blinking lamps visible from all directions within the danger area. The lamps shall automatically be activated as long as the dimension B is exceeded while the power-unit is running.

#### 5.9.1.3 Side guards

Power-operated side panels of the drum guards, intended to be controlled during operation of the machine, shall comply with the following design criteria:

- the control device (handle) shall not lock in any position except in neutral (hold-to-move control);
- the control handle shall be fitted away from danger areas;
- a yellow flashing light shall be fitted within the danger areas and shall be activated whenever the control devices (handles) are operated, and
- the power-operated side panels shall automatically return to their normal (pre-set) position when the control device (handle) is released.

#### 5.9.2 Footguards

Wheels and tracks in the vicinity of the operator's station, and/or in the access areas, shall be provided with footguards. Guards shall comply with clauses 6 and 7 of prEN 953: 1992.

#### 5.9.3 Lowering the milling drum

The machines shall be provided with a safety device preventing any unintentional machine movements when lowering the drum to the cutting mode.



#### 5.9.4 Elevating devices

Elevating devices on the machines shall be provided with a mechanical locking device to ensure safe elevation when maintenance is to be performed under the elevated devices.

NOTE: The mechanical locking device can be integrated with the elevating devices or can be a permanently attached separate unit. The instruction handbook should include instruction on the use of the mechanical locking device.

#### 5.10 Precautions against hazards caused by non-electric energy sources

See EN 500-1: 1995.

#### 5.11 Fire protection

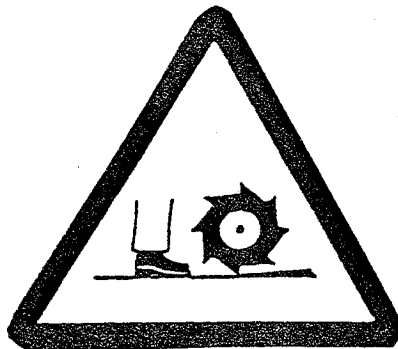
See EN 500-1: 1995.

#### 5.12 Hazards due to extreme temperatures

See EN 500-1: 1995.

#### 5.13 Signal devices and warning signs

A clearly visible and permanent warning sign shall be applied on both sides of the movable guards, or on the protective devices, located around the cutter drum. The marking shall have the form of a warning triangle in accordance with figure 2. The sides of the triangle shall measure at least 60 mm.



"WARNING! ROTATING CUTTER DRUM!"  
(Black print on yellow background)

Figure 2: Warning sign

## 6 Instruction handbook

See EN 500-1: 1995.