



SLOVENSKI STANDARD
SIST EN 12629-5-4:2004+A1:2010
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**Stroji za izdelavo gradbenih proizvodov iz betona in apnenega peščenca - Varnost
- 5-4. del: Stroji za nanašanje premazov na betonske cevi**

Machines for the manufacture of constructional products from concrete and calcium-silicate - Safety - Part 5-4: Concrete pipe coating machines

Maschinen für die Herstellung von Bauprodukten aus Beton und Kalksandsteinmassen - Sicherheit - Teil 5-4: Maschinen zum Beschichten von Betonrohren

Machines pour la fabrication de produits de construction en béton et silico-calcaire - Sécurité - Partie 5-4: Machines de revêtement des tuyaux en béton

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EUROPEAN STANDARD

EN 12629-5-4:2003+A1

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Machines for the manufacture of constructional products from concrete and calcium-silicate - Safety - Part 5-4: Concrete pipe coating machines

Machines pour la fabrication de produits de construction en béton et silico-calcaire - Sécurité - Partie 5-4: Machines de revêtement des tuyaux en béton

Maschinen für die Herstellung von Bauprodukten aus Beton und Kalksandsteinmassen - Sicherheit - Teil 5-4: Maschinen zum Beschichten von Betonrohren

This European Standard was approved by CEN on 3 November 2003 and includes Amendment 1 approved by CEN on 5 August 2010.

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.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

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Foreword

This document (EN 12629-5-4:2003+A1:2010) 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 March 2011, and conflicting national standards shall be withdrawn at the latest by March 2011.

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 2010-08-05.

This document supersedes EN 12629-5-4:2003.

The start and finish of text introduced or altered by amendment is indicated in the text by tags $\boxed{A_1}$ $\boxed{A_1}$.

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).

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

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$\boxed{A_1}$ The series "Machines for the manufacture of constructional products from concrete and calcium – silicate – Safety" consists of following parts:

Part 1: Common requirements [SIST EN 12629-5-4:2004+A1:2010](https://standards.iteh.ai/catalog/standards/sist/fde6bb57-c32d-4049-ab57-25f3ee10d9f4/sist-en-12629-5-4-2004a1-2010)

Part 2: Block making machines

Part 3: Slide and turntable machines

Part 4: Concrete roof tile making machines

Part 5.1: Concrete pipe machines manufacturing in the vertical axis

Part 5.2: Concrete pipe machines manufacturing in the horizontal axis

Part 5.3: Pipe prestressing machines

Part 5.4: Concrete pipe coating machines

Part 6: Stationary and mobile equipment for the manufacture of precast reinforced products

Part 7: Stationary and mobile equipment for the benching manufacture of prestressed products

Part 8: Machines and equipment for the manufacture of constructional products from calcium silicate (and concrete). $\boxed{A_1}$

$\boxed{A_1}$ *deleted text* $\boxed{A_1}$

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

EN 12629-5-4:2003+A1:2010 (E)**Introduction**

A1 This European Standard is a Type C-standard as stated in EN ISO 12100.

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

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

This document specifies the additional requirements to and/or the deviations from EN 12629-1:2000+A1:2010 specific for the concrete pipe coating machines as defined in Clause 3.

With the aim of clarifying the intentions of the document it should be noticed that the following assumptions were made when producing it:

- specific conditions of use or environmental conditions out of the scope of the document shall be the subject of negotiations between the manufacturer and the user/owner,
- the equipment will only be used by competent and designated persons,
- the place of use/installation is adequately lit,
- all operations are carried out by specially trained operators. **A1**

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1 Scope

1.1 ^{A1} This part of EN 12629, taken together with EN 12629-1:2000+A1:2010, applies to concrete pipe coating machines as defined in Clause 3.

EN 12629-1:2000+A1:2010 specifies general requirements applicable to machines for the manufacture of constructional products from concrete and calcium–silicate.

This document specifies the additional requirements to and/or the deviations from EN 12629-1:2000+A1:2010 specific to the machines it covers. ^{A1}

1.2 ^{A1} This European Standard deals with all significant hazards pertinent to these machines, when they are used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer (see Clause 4). This European Standard specifies the appropriate technical measures to eliminate or reduce risks arising from the significant hazards. ^{A1}

^{A1} *deleted text* ^{A1}

This standard establishes safety requirements and/or methods of protection which applies to these machines.

1.3 This European standard applies to the concrete pipe coating making machines which may form an integral part of a pipe making process plant.

1.4 ^{A1} This document is not applicable to concrete pipe coating machines, which are manufactured before the date of publication of this document by CEN. ^{A1}

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2 Normative references

^{A1} 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 1050:1996, *Safety of machinery — Principle for risk assessment*

EN 12629-1:2000+A1:2010, *Machines for the manufacture of constructional products from concrete and calcium-silicate — Safety — Part 1: Common requirements*

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)* ^{A1}

3 Terms and definitions

^{A1} For the purposes of this document, the terms and definitions given in EN ISO 12100-1:2003, EN 12629-1:2000+A1:2010 and the following apply. ^{A1}

3.1

coating machine

machine used to apply a protective coating of concrete or mortar over the high tensile wire reinforcement wound around the concrete pipe

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3.2

coating machine by deposit by vibration

machine used to apply a protective coating of **concrete** by deposit by vibration over the prestressed wire wound around the concrete pipe in horizontal position

3.3

coating machine by impact

machine used to apply a protective coating of **mortar** by deposit by impact over the prestressed wire wound around the concrete pipe in horizontal or vertical position

4 List of significant hazards

This clause contains all hazards, as far as they are dealt with in this European Standard, identified by risk assessment significant for this type of machinery and which require action to eliminate or reduce risk.

A1 In accordance with Clause 4 of EN 12629-1:2000+A1:2010 the hazard zones described in the following tables are illustrated in Annex B. **A1**

Table 1 — Coating machines by deposit by vibration - List of hazards and hazardous situations

List of hazards as per annex A of EN 1050:1996	List of hazards and hazardous situations	HAZARD ZONES (See Informative annex B, Figure B.1)
1 Mechanical hazards		
1.2 Shearing hazards	– Between the rails and the wheels of the pipe transport cart	1
1.6 Impact hazards	– With concrete feeder while moving	5
1.8 Friction or abrasion hazards	– In contact with the rotating pipe during coating operation	2
4. Noise hazards	– From vibrators set up on the hopper to compact the coating concrete	6
19 Slip, trip and fall hazards	– From the gangway 1°	3, 4, 5
	– From the access ladder to the gangway 2°	
	– From the gangway 2°	

Table 2 — Coating machines by deposit by impact- List of hazards and hazardous situations

List of hazards and hazardous situations	List of hazards and hazardous situations	HAZARD ZONES (See Informative annex B, Figure B.2)
1 Mechanical hazards		
1.1 Crushing hazards	– Between support and ground	1
1.5 Drawing-in and trapping hazards	– From rotating turn-table and concrete pipe during coating operation	2
1.9 High pressure fluid injection or ejection hazards	– From penetrated compressed mortar	3
4 Noise	– From the mortar spraying device	5
19 Slip, trip and fall hazards	– From the access-platform – During working in the operating area	4

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5 **A1** Safety requirements and/or protective measures **A1****A1**

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5.1 General

Machinery shall comply with the safety requirements and/or protective measures of this clause and, unless otherwise specified in this standard, with the relevant requirements of EN 12629-1:2000+A1:2010. In addition, the machine shall be designed according to the principles of EN ISO 12100 for hazards relevant but not significant, which are not dealt with by this document.

NOTE For hazards which are to be reduced by the application of an A or B-level standard such as EN ISO 13850, EN ISO 13857, EN 60204-1, and for hydraulic, pneumatic or other machinery dealt with in standards for common uses, the manufacturer should carry out a risk assessment to establish the requirements of the A or B-level or other standard which are to be applied. This specific risk assessment should be part of the general risk assessment of the machine.

Where it is known that the installation site already contains elements that can be considered as risk reduction means, the design of the machine may take these elements into consideration (see also Clause 7). **A1**

A15.2 Concrete coating machines **A1**

In accordance with clause 5 of **A1** EN 12629-1:2000+A1:2010 **A1**, the hazard zones marked 1 to 6 at annexes A and B of this standard, are to be guarded as described in the following tables.