



**SLOVENSKI STANDARD**  
**SIST EN 12629-8:2004**

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Glavni namen tega standarda je zagotoviti varnost pri uporabi strojev in opreme za izdelavo gradbenih izdelkov iz betona in kalcij-silikata (in betona).

Machines for the manufacture of constructional products from concrete and calcium-silicate - Safety - Part 8: Machines and equipment for the manufacture of constructional products from calcium-silicate (and concrete)

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Maschinen für die Herstellung von Bauprodukten aus Beton und Kalksandsteinmassen - Sicherheit - Teil 8: Maschinen und Einrichtungen zur Herstellung von Bauprodukten aus Kalksandsteinmassen (und Beton)

Machines pour la fabrication de produits de construction en béton et silico-calcaire - Sécurité - Partie 8: Machines et installations pour la fabrication de produits de construction en silico-calcaire (et en béton)

**Ta slovenski standard je istoveten z: EN 12629-8:2002**

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ICS 91.220

English version

Machines for the manufacture of constructional products from  
concrete and calcium-silicate - Safety - Part 8: Machines and  
equipment for the manufacture of constructional products from  
calcium-silicate (and concrete)

Machines pour la fabrication de produits de construction en  
béton et silico-calcaire - Sécurité - Partie 8: Machines et  
installations pour la fabrication de produits de construction  
en silico-calcaire (et en béton)

Maschinen für die Herstellung von Bauprodukten aus Beton  
und Kalksandsteinmassen - Sicherheit - Teil 8: Maschinen  
zur Herstellung von Bauprodukten aus  
Kalksandsteinmassen (und Beton)

This European Standard was approved by CEN on 1 November 2002.

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 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 Management Centre has the same status as the official versions.

[SIST EN 12629-8:2004](https://standards.iteh.ai/catalog/standards/sist/3bddc9b8-e0a9-4b04-9d54-5714b8751c20/en-12629-8:2002)

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
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## Foreword

This document (EN 12629-8:2002) 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 June 2003, and conflicting national standards shall be withdrawn at the latest by June 2003.

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 EC Directive(s).

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

The series "Machines for the manufacture of constructional products from concrete and calcium-silicate - Safety" consists of following Parts :

Part 1 : Common requirements

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 benched manufacture of prestressed products

Part 8 : Machines and equipment for the manufacture of constructional products from calcium silicate (and concrete)

Annexes A to D are informative.

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

## Introduction

This European Standard is a Type C-standard in the structure as stated in EN 1070.

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

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.

Reference to pertinent standards mentioned above is made where requirements of such standards are relevant.

## 1 Scope

**1.1** This European Standard applies to hydraulic machines for the manufacture of bricks, blocks and elements of calcium-silicate (as illustrated in annexes A and B).

NOTE Calcium-silicate can be replaced by concrete.

**1.2** This European Standard deals with all significant hazards pertinent to these machines, when used as intended under the conditions foreseen by the manufacturer (see clause 4). This European Standard specifies the appropriate technical measures to eliminate or reduce risk arising from significant hazards.

**1.3** This European Standard applies to the machines from the point at which the mixture enters the machine (see point 1 at annex A, B) until the point where the green products are removed from the machine to the curing system (see point 2 of annex A, B).

**1.4** This European standard does not cover those requirements for reducing hazards from mechanical, electrical, pneumatic, hydraulic or other equipment or machinery that are dealt with in standards for their common use (Type A, B1 and B2 standards).

**1.5** This European Standard deals with the hazards other than noise hazards<sup>1)</sup> listed in clause 4 which can arise during the operation and maintenance, including the interfaces, of machines for the manufacture of constructional products from calcium-silicate, when carried out in accordance with the specifications given by the manufacturer or his authorised representative.

NOTE 1 Amendment is under preparation to deal with noise, in particular for measures to reduce noise at source and a noise test code including noise declaration.

NOTE 2 Interfaces between the machines for the manufacture of constructional products from calcium-silicate and others of the installation are dealt with in 7.2 of EN 12629-1:2000.

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

At this time, noise hazard and vibration hazard are considered as not significant for those machines.

**1.6** The provisions stated in this standard assume that all operators have been adequately informed and trained.

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1) Until a noise test code (dealing with the measurement and declaration of noise emission values) specific to the machines covered by this part is available to complement the requirements of 5.7.2 and 7.4.2 of EN 12629-1:2000, it cannot be considered that noise hazards are covered.

## 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 292-1:1991, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology.*

EN 292-2, *Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles and specifications.*

EN 1070:1998, *Safety of machinery — Terminology.*

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

## 3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 1070:1998 apply.

Additional definitions found in EN 12629-1:2000 and those given below also apply to this standard.

### 3.1

#### **table**

part of the machine in which the mould is set up-down

### 3.2

#### **transmission levers**

those parts of the machine that convert rotary motive power into reciprocal movement through gears and cams

### 3.3

#### **drawing box**

container having the shape of a box with an open or movable bottom. The drawing box fills the mould with the mixture

### 3.4

#### **feed hopper**

device that contains the mixture which is transported to the drawing box by a discharge gate or a dosing belt

### 3.5

#### **take off device**

integral part of the machine, that takes off the formed (green) products and puts them on a green product collection system or arranges them into formation for removal from the machine

### 3.6

#### **green product collection system**

integral transport system which is part of the machine that carries the green product from the take off device to the stacking equipment, or to the point where the green product is removed from the machine

### 3.7

#### **stacking equipment**

transport system which is an integral part of the machine that takes the green products from either the green product collection system or the take off device and arranges them into formation for removal from the machine

**3.8  
brick wagon pusher**

transport system which is an integral part of the machine which pushes the brick wagons from one position to the other within the area of the stacking equipment or take off device. It is only used at machines producing calcium-silicate products

**3.9  
stirring gear**

mechanically driven equipment within the drawing box used to maintain the mixture flushing

**4 List of significant hazards**

This clause contains all hazards, hazardous situations and events 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.

Before using this standard, it is important for the manufacturer to carry out a risk assessment of the machine to check that it has the hazards identified in this clause.

**4.1 Mechanical hazards (see informative annexes C and D)**

Annexes C and D (informative) illustrate examples of common machine types.

In accordance with clause 5 of EN 12629-1:2000 the hazard zones, marked 1-10 at annexes C and D of this standard, are described in the following table (see also 4.1.1 to 4.1.7 for detailed mechanical hazards).

**Table 1 — Mechanical hazards, hazard zones**

Hazard zones	Hazard	References clause 4
1	Shearing	4.1.2
	Cutting or severing	4.1.3
2	Shearing	4.1.2
	Cutting or severing	4.1.3
	Drawing-in or trapping	4.1.5
	Impact	4.1.6
3	Crushing	4.1.1
	Shearing	4.1.2
	Cutting or severing	4.1.3
	Drawing-in or trapping	4.1.5
	Impact	4.1.6
4	Crushing	4.1.1
	Cutting or severing	4.1.3
	Entanglement	4.1.4
	Drawing-in or trapping	4.1.5
5	Shearing	4.1.2
	Cutting or severing	4.1.3
	Entanglement	4.1.4



Hazard zones	Hazard	References clause 4
	Drawing-in or trapping	4.1.5
6	Crushing	4.1.1
	Shearing	4.1.2
	Cutting or severing	4.1.3
7	Entanglement	4.1.4
	Drawing-in or trapping	4.1.5
8	Cutting or severing	4.1.3
9	Crushing	4.1.1
	Impact	4.1.6
10	Cutting or severing	4.1.3
	Entanglement	4.1.4
Equipment	High pressure	4.1.7

#### 4.1.1 Crushing hazards

Beneath descending stacking equipment (see hazard zone 3, annex C).

Beneath descending take off device (see hazard zone 2, annex D).

Between transmission levers and fixed parts (see hazard zone 9, annex C).

Between the moving drawing box and fixed parts (see hazard zone 4, annexes C and D).

Between brick wagons and between brick wagons and fixed structure of the machine (see hazard zone 6, annexes C and D).

#### 4.1.2 Shearing hazards

The area in which the take off device reciprocates between the take off device and other machine parts (see hazard zone 2, annexes C and D).

Between the inner mould and the outside mould (see hazard zone 1, annexes C and D).

The area where the stacking equipment is moving, between moving and fixed parts (see hazard zone 3, annex C).

All moving parts of power transmission, between those parts and fixed parts of the machine (see hazard zone 5, annexes C and D).

Between brick wagons and fixed parts of the machine (see hazard zone 6, annexes C and D).