



SLOVENSKI STANDARD
oSIST prEN 16228-5 rev:2011
01-junij-2011

Oprema za vrtnje in temeljenje - Varnost - 5. del: Oprema za izdelavo membranskih sten

Drilling and foundation equipment - Safety - Part 5: Diaphragm walling equipment

Geräte für Bohr- und Gründungsarbeiten - Sicherheit - Teil 5: Geräte für Schlitzwandaarbeiten

Machines de forage et de fondation - Sécurité - Partie 5: Machines pour parois moulées dans le sol

Ta slovenski standard je istoveten z: prEN 16228-5 rev

SIST EN 16228-5:2014

<https://standards.iteh.ai/catalog/standards/sist/03e6a045-ed3f-4a3e-b3d3-85fe6356e7eb/sist-en-16228-5-2014>

ICS:

93.020	Zemeljska dela. Izkopavanja.	Earthworks. Excavations.
	Gradnja temeljev. Dela pod zemljo	Foundation construction. Underground works

oSIST prEN 16228-5 rev:2011

en,fr

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 16228-5 rev

February 2011

ICS 93.020

Will supersede EN 791:1995+A1:2009, EN
996:1995+A3:2009

English Version

Drilling and foundation equipment - Safety - Part 5: Diaphragm walling equipment

Machines de forage et de fondation - Sécurité - Partie 5:
Machines pour parois moulées dans le sol

Geräte für Bohr- und Gründungsarbeiten - Sicherheit - Teil
5: Geräte für Schlitzwandaarbeiten

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 151.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.

[SIST EN 16228-5:2014](https://standards.iteh.ai/catalog/standards/sist/03e6a045-ed3f-4a3e-b3d3-85fe6356e7eb/sist-en-16228-5-2014)

<https://standards.iteh.ai/catalog/standards/sist/03e6a045-ed3f-4a3e-b3d3-85fe6356e7eb/sist-en-16228-5-2014>



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	3
Introduction	4
1 Scope	4
2 Normative references	4
3 Terms and definitions	5
4 List of significant hazards	6
5 Safety requirements and/or protective measures	7
5.1 General.....	7
5.2 Operation in slurries and muds etc.	7
5.3 Requirements for strength and stability	7
5.3.1 Strength of a diaphragm walling rig	7
5.3.2 Loads from diaphragm walling cutting tools.....	7
5.3.3 Stability of diaphragm walling rig	7
5.4 Winches and pulleys	8
5.4.1 Winches and pulleys safety factors.....	9
5.4.2 Changing ropes.....	9
5.5 Access	9
5.6 Control devices	9
5.6.1 Control of the milling cutter.....	9
5.6.2 Control of winches when changing ropes	10
5.7 Guards and protective devices	10
5.8 Limiting and indicating devices	10
5.9 Maintenance of milling cutters	10
5.10 Hose and cable handling systems	10
6 Verification of the safety requirements and/or protective measures	10
6.1 Types of verification.....	11
7 Information for use	12
7.1 Operator's manual	12
7.2 Maintenance instructions	12
7.3 Additional Information	12
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC	13
Bibliography	14

Foreword

This document (prEN 16228-5:2011) 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 document is currently submitted to the CEN Enquiry.

This document will supersede EN 791:1995+A1:2009, EN 996:1995+A3:2009.

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, see informative Annex ZA, which is an integral part of this document.

Part 1: Drilling and foundation equipment – Safety – Common requirements

Part 2: Drilling and foundation equipment – Safety – Mobile drill rigs for civil and geotechnical engineering, quarrying and mining

Part 3: Drilling and foundation equipment – Safety – Horizontal directional drilling equipment (HDD)

Part 4: Drilling and foundation equipment – Safety – Foundation equipment

Part 5: Drilling and foundation equipment – Safety – Diaphragm walling equipment

Part 6: Drilling and foundation equipment – Safety – Jetting, grouting and injection equipment

Part 7: Drilling and foundation equipment – Safety – Interchangeable auxiliary equipment

[SIST EN 16228-5:2014](https://standards.iteh.ai/catalog/standards/sist/03e6a045-ed3f-4a3e-b3d3-85fe6356e7eb/sist-en-16228-5-2014)

<https://standards.iteh.ai/catalog/standards/sist/03e6a045-ed3f-4a3e-b3d3-85fe6356e7eb/sist-en-16228-5-2014>

Introduction

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

The machinery concerned and the extent to which hazards 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 drilling and foundation equipment that have been designed and built according to the provisions of this type C standard.

1 Scope

This document specifies the specific safety requirements for diaphragm walling equipment when used as intended and under the conditions of misuse which are reasonably foreseeable by the manufacturer. This document specifies the appropriate technical measures to eliminate or reduce risks arising from the significant hazards.

The requirements of this document are in addition to the common requirements formulated in part 1. This document does not repeat the requirements from part 1, but adds the requirements for application to diaphragm walling equipment

This document specifies the appropriate technical measures to eliminate or reduce risks arising from the significant hazards, hazardous situations and events detailed in 4 below.

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 474-5:2006+A1:2009, *Earth-moving machinery — Safety — Part 5: Requirements for hydraulic excavators*

EN 474-12:2006+A1:2008, *Earth-moving machinery — Safety — Part 12: Requirements for cable excavators*

prEN 16228-1:2010, *Drilling and foundation equipment — Safety — Common requirements*

EN 13000:2010, *Cranes — Mobile cranes*

EN 13001-1:2004+A1:2009, *Cranes — General design — Part 1: General principles and requirements*

EN 13001-2:2004+A3:2009, *Cranes — General design — Part 2: Load actions*

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)*