სსტ ენ ისო 13855:2010/2019

# საქართველოს სტანდარტი



## მანქანა-დანადგარების უსაფრთხოება - დამცავი მექანიზმების პოზიციონირება ადამიანის მიახლოების სიჩქარის გათვალისწინებით (ისო 13855:2010)

საქართველოს სტანდარტებისა და მეტროლოგიის
ეროვნული სააგენტო
თბილისი

# სსტ ენ ისო 13855:2010/2019

## საინფორმაციო მონაცემები

**1 შემუშავებულია** საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს სტანდარტების დეპარტამენტის მიერ

**2 დამტკიცებულია და შემოღებულია სამოქმედოდ** საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს 2019 წლის 6 დეკემბრის № 98 განკარგულებით

**3 მიღებულია გარეკანის თარგმნის მეთოდით** სტანდარტიზაციის ევროპული კომიტეტის სტანდარტი ენ ისო 13855:2010 „მანქანა-დანადგარების უსაფრთხოება - დამცავი მექანიზმების პოზიციონირება ადამიანის მიახლოების სიჩქარის გათვალისწინებით (ისო 13855:2010)"

**4 პირველად**

**5 რეგისტრირებულია** საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს რეესტრში: 2019 წლის 6 დეკემბერი №268-1.3-016556

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

# EN ISO 13855

May 2010

ICS 13.110

Supersedes EN 999:1998+A1:2008

English Version

# Safety of machinery - Positioning of safeguards with respect to the approach speeds of parts of the human body (ISO 13855:2010)

Sécurité des machines - Positionnement des moyens de protection par rapport à la vitesse d'approche des parties du corps (ISO 13855:2010)

Sicherheit von Maschinen - Anordnung von Schutzeinrichtungen im Hinblick auf Annäherungsgeschwindigkeiten von Körperteilen (ISO 13855:2010)

This European Standard was approved by CEN on 22 April 2010.

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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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Ref. No. EN ISO 13855:2010: E

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# Foreword

This document (EN ISO 13855:2010) has been prepared by Technical Committee ISO/TC 199 "Safety of machinery" in collaboration with Technical Committee CEN/TC 114 “Safety of machinery” 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 November 2010, and conflicting national standards shall be withdrawn at the latest by November 2010.

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 supersedes EN 999:1998+A1:2008.

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.

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

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 the United Kingdom.

**Endorsement notice**

The text of ISO 13855:2010 has been approved by CEN as a EN ISO 13855:2010 without any modification.

# Annex ZA
## (informative)

## Relationship between this International Standard and the Essential Requirements of EU Directive 2006/42/EC

This International Standard has been prepared under a mandate given to CEN by the European Commission the European Free Trade Association to provide one means of conforming to Essential Requirements of the New Approach Directive 2006/42/EC.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that Directive and associated EFTA regulations.

**WARNING:** Other requirements and other EU Directives may be applicable to the products falling within the scope of this standard.

INTERNATIONAL STANDARD

**ISO 13855**

Second edition
2010-05-01

# Safety of machinery — Positioning of safeguards with respect to the approach speeds of parts of the human body

*Sécurité des machines — Positionnement des moyens de protection par rapport à la vitesse d'approche des parties du corps*

Reference number
ISO 13855:2010(E)

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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 13855 was prepared by Technical Committee ISO/TC 199, *Safety of machinery*.

This second edition cancels and replaces the first edition (ISO 13855:2002), which has been technically revised.

# Introduction

The structure of safety standards in the field of machinery is as follows:

a) type-A standards (basic safety standards) giving basic concepts, principles for design, and general aspects that can be applied to all machinery;

b) type-B standards (generic safety standards) dealing with one safety aspect or one or more type(s) of safeguard that can be used across a wide range of machinery:

   — type-B1 standards on particular safety aspects (e.g. safety distances, surface temperature, noise);

   — type-B2 standards on safeguards (e.g. two-hand controls, interlocking devices, pressure-sensitive devices, guards);

c) type-C standards (machine safety standards) dealing with detailed safety requirements for a particular machine or group of machines.

This document is a type-B standard as stated in ISO 12100-1.

The requirements of this document can be supplemented or modified by a type-C standard.

For machines which are covered by the scope of a type-C standard and which have been designed and built according to the requirements of that type-C standard, the following applies: if the requirements of that type-C standard deviate from the requirements in type-B standards, the requirements of that type-C standard take precedence over the provisions of other standards.

The effectiveness of certain types of safeguard described in this International Standard to minimize risk relies, in part, on the relevant parts of that equipment being correctly positioned in relation to the hazard zone. In deciding on these positions, a number of aspects are taken into account, such as:

— the necessity of a risk assessment according to ISO 14121-1;

— the practical experience in the use of the machine;

— the overall system stopping performance;

— the time taken to ensure the safe condition of the machine following operation of the safeguard, for example to stop the machine;

— the bio-mechanical and anthropometric data;

— any intrusion by a part of the body towards the hazard zone until the protective device is actuated;

— the path taken by the body part when moving from the detection zone towards the hazard zone;

— the possible presence of a person between the safeguard and the hazard zone;

— the possibility of undetected access to the hazard zone.