



SLOVENSKI STANDARD
SIST EN ISO 14159:2008

01-september-2008

BUXca Yý U
SIST EN ISO 14159:2004

JUfbcghlfc Yj '!'<[[]Ybg_YnU hYj YnUbU flcj Ub Y'glfc Yj 'fIGC`% % - .&\$&&

Safety of machinery - Hygiene requirements for the design of machinery (ISO 14159:2002)

Sicherheit von Maschinen - Hygieneanforderungen an die Gestaltung von Maschinen (ISO 14159:2002)

STANDARD PREVIEW
(standards.iteh.ai)

Sécurité des machines - Prescriptions relatives à l'hygiène lors de la conception des machines (ISO 14159:2002)

[SIST EN ISO 14159:2008](https://standards.iteh.ai/catalog/standards/sist/15bef32f-1aa0-477f-8378-99f3ff8f535d/sist-en-iso-14159-2008)
<https://standards.iteh.ai/catalog/standards/sist/15bef32f-1aa0-477f-8378-99f3ff8f535d/sist-en-iso-14159-2008>

Ta slovenski standard je istoveten z: EN ISO 14159:2008

ICS:

13.110 Varnost strojev Safety of machinery

SIST EN ISO 14159:2008 **en,fr,de**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 14159:2008

<https://standards.iteh.ai/catalog/standards/sist/15bef32f-1aa0-477f-8378-99f3ff8f535d/sist-en-iso-14159-2008>

English Version

Safety of machinery - Hygiene requirements for the design of machinery (ISO 14159:2002)

Sécurité des machines - Prescriptions relatives à l'hygiène
lors de la conception des machines (ISO 14159:2002)

This European Standard was approved by CEN on 21 March 2008.

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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, 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.

[SIST EN ISO 14159:2008](https://standards.iteh.ai/catalog/standards/sist/15bef32f-1aa0-477f-8378-99f3ff8f535d/sist-en-iso-14159-2008)

<https://standards.iteh.ai/catalog/standards/sist/15bef32f-1aa0-477f-8378-99f3ff8f535d/sist-en-iso-14159-2008>



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

Page

Foreword.....	3
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC	4
Annex ZB (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC	5

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 14159:2008](https://standards.iteh.ai/catalog/standards/sist/15bef32f-1aa0-477f-8378-99f3ff8f535d/sist-en-iso-14159-2008)

<https://standards.iteh.ai/catalog/standards/sist/15bef32f-1aa0-477f-8378-99f3ff8f535d/sist-en-iso-14159-2008>

Foreword

The text of ISO 14159:2002 has been prepared by Technical Committee ISO/TC 199 "Safety of machinery" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 14159:2008 by 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 October 2008, and conflicting national standards shall be withdrawn at the latest by October 2008.

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 ISO 14159:2004.

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 Directives.

For relationship with EC Directives, see informative Annex ZA and ZB which are 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, 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.

<https://standards.iteh.ai/catalog/standards/sist/15bef32f-1aa0-477f-8378-99f3ff8f535d/sist-en-iso-14159-2008>

Endorsement notice

The text of ISO 14159:2002 has been approved by CEN as a EN ISO 14159:2008 without any modification.

Annex ZA
(informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive Machinery 98/37/EC, amended by 98/79/EC.

Once this standard is cited in the Official Journal of the European Communities 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 given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirements of that Directive and associated EFTA regulations.

Table ZA.1 — Correspondence between this European Standard and Directive 98/37/EC

Clause(s)/sub-clause(s) of this EN	Essential Requirements (ERs) of Directive 98/37/EC, amended by 98/79/EC	Qualifying remarks/Notes
All clauses	Annex 1, 2.1	Agri-foodstuffs machinery

WARNING — Other requirements and other EC Directives may be applicable to the product(s) falling within the scope of this standard.

[SIST EN ISO 14159:2008](https://standards.iteh.ai/catalog/standards/sist/15bef32f-1aa0-477f-8378-99f3ff8f535d/sist-en-iso-14159-2008)
<https://standards.iteh.ai/catalog/standards/sist/15bef32f-1aa0-477f-8378-99f3ff8f535d/sist-en-iso-14159-2008>

Annex ZB (informative)

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

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

Once this standard is cited in the Official Journal of the European Communities 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 given in Table ZB.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirements of that Directive and associated EFTA regulations.

Table ZB.1 — Correspondence between this European Standard and Directive 2006/42/EC

Clause(s)/sub-clause(s) of this EN	Essential Requirements (ERs) of Directive 2006/42/EC	Qualifying remarks/Notes
All clauses	Annex I, 2.1	Foodstuffs machinery etc.

WARNING — Other requirements and other EC Directives may be applicable to the product(s) falling within the scope of this standard.

[SIST EN ISO 14159:2008](https://standards.iteh.ai/catalog/standards/sist/15bef32f-1aa0-477f-8378-99f3ff8f535d/sist-en-iso-14159-2008)

<https://standards.iteh.ai/catalog/standards/sist/15bef32f-1aa0-477f-8378-99f3ff8f535d/sist-en-iso-14159-2008>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 14159:2008

<https://standards.iteh.ai/catalog/standards/sist/15bef32f-1aa0-477f-8378-99f3ff8f535d/sist-en-iso-14159-2008>

**Safety of machinery — Hygiene
requirements for the design of machinery**

*Sécurité des machines — Prescriptions relatives à l'hygiène lors de la
conception des machines*

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 14159:2008](https://standards.iteh.ai/catalog/standards/sist/15bef32f-1aa0-477f-8378-99f3ff8f535d/sist-en-iso-14159-2008)

[https://standards.iteh.ai/catalog/standards/sist/15bef32f-1aa0-477f-8378-
99f3ff8f535d/sist-en-iso-14159-2008](https://standards.iteh.ai/catalog/standards/sist/15bef32f-1aa0-477f-8378-99f3ff8f535d/sist-en-iso-14159-2008)



PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 14159:2008](https://standards.iteh.ai/catalog/standards/sist/15bef32f-1aa0-477f-8378-99f3ff8f535d/sist-en-iso-14159-2008)

<https://standards.iteh.ai/catalog/standards/sist/15bef32f-1aa0-477f-8378-99f3ff8f535d/sist-en-iso-14159-2008>

© ISO 2002

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.ch
Web www.iso.ch

Printed in Switzerland

Contents

	Page
Foreword.....	iv
Introduction.....	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Hazards	4
5 Hygiene requirements and/or measures	4
5.1 Strategy for selecting hygiene measures	4
5.2 Hygienic design	7
6 Verification of hygiene measures and test methods	11
7 Instruction handbook, maintenance and cleaning.....	11
7.1 Instruction handbook	11
7.2 Maintenance and cleaning	11
8 Additional information (limitations of use)	12
Annex A (informative) Categorization of machinery and associated equipment for intended use.....	13
Annex B (informative) Examples of good and bad hygienic design features.....	14
Annex C (informative) Relationship between International Standards referenced in clause 2 and corresponding European Standards.....	29
Bibliography.....	30

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 3.

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 International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 14159 was prepared by Technical Committee ISO/TC 199, *Safety of machinery*.

Annexes A to C are for information only.

ITEH STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 14159:2008](https://standards.iteh.ai/catalog/standards/sist/15bef32f-1aa0-477f-8378-99f3ff8f535d/sist-en-iso-14159-2008)

<https://standards.iteh.ai/catalog/standards/sist/15bef32f-1aa0-477f-8378-99f3ff8f535d/sist-en-iso-14159-2008>

Introduction

This International Standard is one of a series of standards relating to the safety of machinery (ISO 12100 series). It differs from other safety standards, however, in that it is concerned with the associated hygiene risks of the machinery to the consumer of the product being processed, not to the operator of the machine.

Hygiene risks are very different from other safety risks. They are more associated with the ability of machines to be freed from product debris and micro-organisms, and thus preventing product contamination, rather than from the dangers of moving parts or electrical hazards to the operator. For this reason, and whilst this International Standard considers machines and their associated equipment, it can be used to provide guidance to the manufacturers of all equipment types where hygiene risks to the consumer of products to be processed by such equipment could occur.

This International Standard is a Type B standard (see ISO 12100) and as such is very general. It is applicable to all machines and associated equipment in applications where hygiene risks to the consumer of the product can occur (e.g., food, pharmaceuticals, biotechnology, cosmetics). Other standards, such as for example machinery specific Type C standards (see Bibliography), may be required to provide guidance for specific types of equipment and/or for specific industry sectors.

Historically, there have been cases where safety criteria have been addressed in machinery design without taking into account the implications linked to hygienic risks (and vice versa). In almost all cases, at least one of the different methods of design, safeguarding or residual safeguards can be chosen which will meet both safety and hygiene essential requirements and adequately control both risks. The option chosen shall satisfy both hygiene and safety risks, even if it may not be the most obvious option to have been adopted had the risk only been to safety or to hygiene.

When no design or safeguarding options are within the state of the art to adequately control both hygiene and safety risks, then one of the risks, or both, would have to be dealt with by residual safeguards, including instructions to the user. The assessment of the respective safety and hygiene risks shall indicate their relative significance, and the highest level of protection (i.e. safeguarding) shall be implemented to deal with the severest risk, and residual safeguards shall be used for the lesser risk.

The technical solutions given in this International Standard permit both objectives to be met for those significant and common risks identified as justifying common requirements specified in this International Standard.