Irish Standard
I.S. EN 15949:2012

Safety of machinery - Safety requirements for bar mills, structural steel mills and wire rod mills

I.S. EN 15949:2012

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English Version

Safety of machinery - Safety requirements for bar mills, structural steel mills and wire rod mills

Sécurité des machines - Exigences techniques de sécurité pour machines de train à barre, train à profilés et train à fil

Sicherheit von Maschinen - Sicherheitsanforderungen an Stab-, Formstahl- und Drahtwalzwerke

This European Standard was approved by CEN on 30 December 2011.

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-CENELEC 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-CENELEC Management Centre has the same status as the official versions.

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Foreword

This document (EN 15949:2012) has been prepared by Technical Committee CEN/TC 322 “Equipment for making and shaping of metals - Safety requirements”, 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of an identical text or by endorsement, at the latest by August 2012, and conflicting national standards shall be withdrawn at the latest by August 2012.

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 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.

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, Turkey and the United Kingdom.

Introduction

This document is a type C standard as stated in EN ISO 12100:2010.

The equipment 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.

Where for clarity an example of a preventative measure is given in the text, this should not be considered as the only possible solution. Any other solution leading to the same risk reduction is permissible if an equivalent level of safety is achieved.

This European Standard assumes that the equipment is operated and maintained by trained personnel.

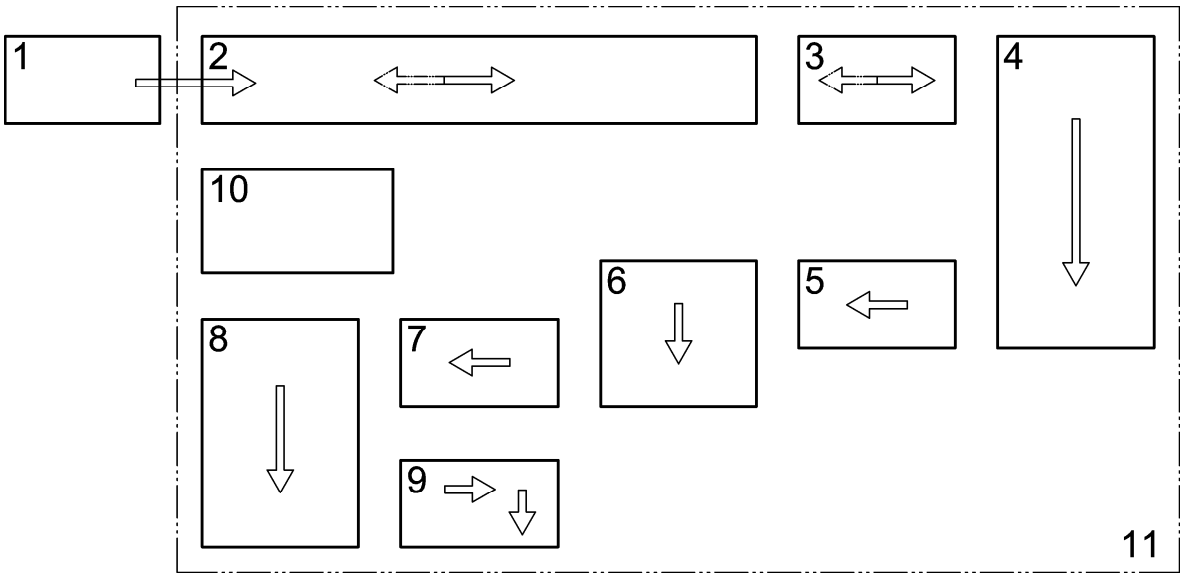
1 Scope

This European Standard defines the general safety requirements for hot rolling mills for long products as defined in 3.1.

This European Standard deals with significant hazards, hazardous situations and events relevant to hot rolling mills for long products. It deals not only with circumstances where the machinery is used as intended, but also includes other conditions foreseen by the manufacturer, such as foreseeable faults, malfunctions or misuse (see Clauses 4 and 5).

This applies also to hazards arising during various phases of the life of the machinery and equipment as described in 5.4 of EN ISO 12100:2010.

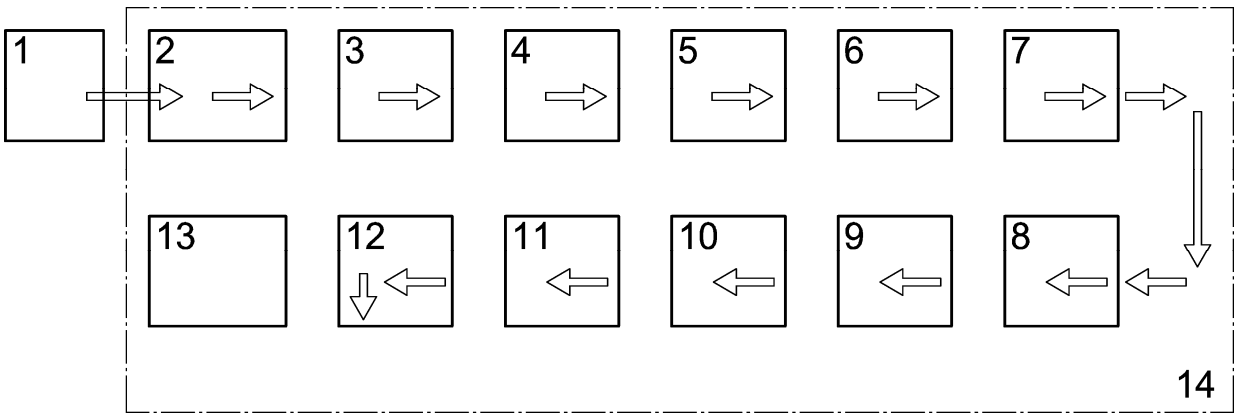
This European standard applies to: Machinery and equipment used for the manufacturing of metal rolled long products from the material supply from (1), via the rolling mill process equipment (2) to (9) including preparation area (10) (exemplary layout is given in Figure 1).



Key

1	e.g., continuous casting machine (according to EN 14753) or furnace (according EN 746-1)	7	saws, shears, abrasive cutting machines
		8	piling machine
2	mill stands	9	binding and loading area
3	roller tables	10	preparation area
4	cooling beds	11	border of the rail / section rolling mill
5	straightening machines	⇨	product flow
6	collecting beds		

Figure 1 — Exemplary layout of a rail / section rolling mill



Key

1	e.g., continuous casting machine (according to EN 14753) or furnace (according EN 746-1)	8	cooling line
		9	laying head
2	roughing mill area	10	loop cooling conveyor
3	intermediate mill area	11	coil station
4	cooling line	12	coil handling
5	shearing group	13	preparation area
6	wire rod block	14	border of the bar / wire rod mill
7	snap shear	⇨	product flow

Figure 2 — Exemplary layout of a bar / wire rod mill

The following equipment is excluded:

a) furnaces in accordance with the EN 746 series;

b) continuous casting machines according to EN 14753;

c) hook conveyors according to EN 619;

d) roll and guide shop equipment (e. g., machine-tool);

e) storage equipment (e.g., high-bay warehouses);

f) cranes, fork lifts, trucks and railway trucks and other vehicles.

This document is not applicable to rolling mills for long products, which are manufactured before the date of its publication as an EN document.

2 Normative References

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 349, *Safety of machinery — Minimum gaps to avoid crushing of parts of the human body*

EN 614-1:2006+A1:2009, *Safety of machinery — Ergonomic design principles — Part 1: Terminology and general principles*

EN 614-2, *Safety of machinery — Ergonomic design principles — Part 2: Interactions between the design of machinery and work tasks*