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BSI Standards Publication

## **Continuous handling equipment and systems – Safety requirements for fixed belt conveyors for bulk materials**

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## National foreword

This British Standard is the UK implementation of EN 620:2021. It supersedes BS EN 620:2002+A1:2010, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee MHE/9, Continuous mechanical handling equipment.

A list of organizations represented on this committee can be obtained on request to its committee manager.

This publication has been prepared under a mandate given to the European Standards Organizations by the European Commission and the European Free Trade Association. It is intended to support requirements of the EU legislation detailed in the European Foreword. A European Annex, usually Annex ZA or ZZ, describes how this publication relates to that EU legislation.

For the Great Britain market (England, Scotland and Wales), if UK Government has designated this publication for conformity with UKCA marking (or similar) legislation, it may contain an additional National Annex. Where such a National Annex exists, it shows the correlation between this publication and the relevant UK legislation. If there is no National Annex of this kind, the relevant Annex ZA or ZZ in the body of the European text will indicate the relationship to UK regulation applicable in Great Britain. References to EU legislation may need to be read in accordance with the UK designation and the applicable UK law. Further information on designated standards can be found at [www.bsigroup.com/standardsandregulation](http://www.bsigroup.com/standardsandregulation).

For the Northern Ireland market, UK law will continue to implement relevant EU law subject to periodic confirmation. Therefore Annex ZA/ZZ in the European text, and references to EU legislation, are still valid for this market.

UK Government is responsible for legislation. For information on legislation and policies relating to that legislation, consult the relevant pages of [www.gov.uk](http://www.gov.uk).

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**Compliance with a British Standard cannot confer immunity from legal obligations.**

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 October 2021.

**Amendments/corrigenda issued since publication**

Date	Text affected
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October 2021

ICS 53.040.10

Supersedes EN 620:2002+A1:2010

English Version

## Continuous handling equipment and systems - Safety requirements for fixed belt conveyors for bulk materials

Équipements et systèmes de manutention continue -  
Prescriptions de sécurité pour les transporteurs à  
courroie fixes pour produits en vrac

Stetigförderer und Systeme - Sicherheits-  
Anforderungen an ortsfeste Gurtförderer für Schüttgut

This European Standard was approved by CEN on 18 July 2021.

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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

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## European foreword

This document (EN 620:2021) has been prepared by Technical Committee CEN/TC 148 "Continuous handling equipment and systems - Safety", the secretariat of which is held by AFNOR.

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 April 2022 and conflicting national standards shall be withdrawn at the latest by April 2022.

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

This document will supersede EN 620:2002+A1:2010.

The main changes with respect to EN 620:2002+A1:2010 are as follows:

- Scope was clarified;
- Normative references were updated;
- Definitions were added;
- List of significant hazards updated and removed in an informative Annex;
- Overall safety requirements was updated;
- New normative annex relatın to specification of performance level;
- New requirements relating to noise reduction;
- New Annex ZA in line with template of Machinery harmonized standard;
- De-harmonization to EMC regulation.

This document is part of a series of five standards the titles of which are given below:

- EN 617 *"Continuous handling equipment and systems — Safety and EMC requirements for the equipment for the storage of bulk materials in silos, bunkers, bins and hoppers"*;
- EN 618 *"Continuous handling equipment and systems — Safety and EMC requirements for equipment for mechanical handling of bulk materials except fixed belt conveyors"*;
- EN 619 *"Continuous handling equipment and systems — Safety requirements for equipment for mechanical handling of unit loads"*;
- EN 620 *"Continuous handling equipment and systems — Safety requirements for fixed belt conveyors for bulk materials"*;
- EN 741 *"Continuous handling equipment and systems — Safety requirements for systems and their components for pneumatic handling of bulk materials"*.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) / Regulation(s).



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For relationship with EU Directive(s) / Regulation(s), see informative Annex ZA, which is an integral part of this document.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations 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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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## Introduction

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

The products concerned and the extent to which hazards are covered are indicated in the scope of this document.

While producing this document it was assumed that:

- For specific purpose machinery, clarifications occur between the manufacturer and the purchaser concerning particular conditions for the operation and location of the machinery (typically considering adjacent machinery, means of access, guarding concept, control systems, etc) related to health and safety. An agreement is needed between the manufacturer and purchaser about belt material, considering specific risk e.g. fire and the establishment of zones;
- only suitably trained persons operate this machinery;
- the machinery will be kept in good repair and working order, in accordance with the manufacturer's instructions, to retain specified health and safety characteristics throughout its working life;
- the place of installation is adequately illuminated;
- the place of installation will allow safe operation of the machinery;
- by design of the load bearing elements, the safe operation of the system and components is ensured for loading ranging from zero to 100 % of the rated capacities and during testing;
- all parts of the machinery without specific requirements, will be:
  - a) made from materials of adequate strength and durability and of suitable quality for their intended purpose;
  - b) designed in accordance with the usual engineering practice and engineering codes, taking account of all failure modes and incorporating appropriate safety factors;
- the establishment of the different zones is defined between the user and the manufacturer.

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## 1 Scope

**1.1** This document deals with the technical requirements for stationary belt conveyors and systems as defined in 3.1 to 3.2.4, designed for continuously conveying loose bulk materials. The covered phases of life cycle are design, setting, operation, maintenance and cleaning.

**1.2** This document does not cover:

- a) use in coal mining and open cast lignite mining;
- b) use for man-riding;
- c) floating, dredging and ship mounted structures supporting the conveyor;
- d) biological and chemical hazards resulting from handling foodstuffs or pharmaceuticals;
- e) the design of the supporting structure which is not part of a conveyor;
- f) the effects of wind;
- g) hazards resulting from handling specific hazardous materials, (e.g. explosives, radiating material);
- h) hazards resulting from contact with or inhalation of harmful fluids, gases, mists, fumes or dust;
- i) biological and micro-biological (viral or bacterial) hazards;
- j) hazards caused by the use of ionising radiation sources;
- k) conveyors fitted with a moving belt with other than a continuous rubber or polymeric surface for the conveying medium;
- l) hazards associated with the integration of belt conveyors with other machinery;

The safety requirements of this document apply to equipment and systems placed on the market after the date of publication of this document.

**NOTE** Directive 2014/34/EC concerning equipment and protective systems intended for operation in potentially explosive atmospheres can be applicable to the type of machine or equipment covered by this European Standard. The present document is not intended to provide means of complying completely with the essential health and safety requirements of Directive 2014/34/EC.