



NSAI
Standards

Irish Standard
I.S. EN 12895:2015

Industrial trucks - Electromagnetic compatibility

I.S. EN 12895:2015

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on:

EN 12895:2015

Published:

2015-09-30

This document was published under the authority of the NSAI and comes into effect on:

2015-10-22

ICS number:

33.100.01

53.060

NOTE: If blank see CEN/CENELEC cover page

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

National Foreword

I.S. EN 12895:2015 is the adopted Irish version of the European Document EN 12895:2015, Industrial trucks - Electromagnetic compatibility

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

This page is intentionally left blank

EUROPEAN STANDARD

EN 12895

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2015

ICS 33.100.01; 53.060

Supersedes EN 12895:2000

English Version

Industrial trucks - Electromagnetic compatibility

Chariots de manutention - Compatibilité
électromagnétique

Flurförderzeuge - Elektromagnetische Verträglichkeit

This European Standard was approved by CEN on 17 July 2015.

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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents	Page
European foreword	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 Requirements	7
4.1 Emission	7
4.2 Immunity	7
5 Tests	9
5.1 General	9
5.2 Emission test of electromagnetic fields	9
5.2.1 General	9
5.2.2 Test and measurement equipment	9
5.2.3 Test procedure	9
5.2.4 Test of the driving system	11
5.2.5 Test of load handling system with electric motor drive	11
5.2.6 Test of the power steering system with electric motor drive	11
5.2.7 Test of the auxiliary electrical equipment	11
5.3 Immunity test against electromagnetic radiation	11
5.3.1 General	11
5.3.2 Test and measurement equipment	12
5.3.3 Basic test procedure	12
5.3.4 Test of driving system at zero speed	13
5.3.5 Test of the driving system at low rotational speed	13
5.3.6 Test of load handling system	14
5.3.7 Test of the electric power steering system	14
5.3.8 Test of the auxiliary electrical equipment	14
5.4 Immunity test against electrostatic discharge	14
5.5 Immunity test against auxiliary magnetic field	15
6 Test report	15
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2004/108/EC	16
Annex ZB (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2014/30/EU	17
Bibliography	18

European foreword

This document (EN 12895:2015) has been prepared by Technical Committee CEN/TC 150 “Industrial trucks - Safety”, the secretariat of which is held by BSI.

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 March 2016, and conflicting national standards shall be withdrawn at the latest by September 2017.

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 12895:2000.

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 and Annex ZB, which are 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, Former Yugoslav Republic of Macedonia, 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.

EN 12895:2015 (E)**Introduction**

With the use of electronic devices in areas where industrial trucks operate, there is a need to ensure that industrial trucks are provided with adequate immunity to external electromagnetic fields. As industrial trucks are fitted with electrical and electronic devices, there is a need to ensure that emission of electromagnetic fields from the trucks meets acceptable limits.

High frequency electrical disturbances emerge during the normal operation of many parts of the industrial trucks and systems. They are generated within a large frequency range with different electrical characteristics.

Electrostatic discharges are relevant to industrial trucks.

The test methods and acceptance criteria included in this document are suitable for industrial trucks in view the specific characteristics and the operating parameters of this machinery; the tests have been designed to reflect the construction of industrial trucks.

Two approaches are described to achieve compliance:

- complete truck tests;
- electrical/electronic systems with the components in the same configuration as in the truck.

In some situations trucks can be foreseen to be used in environments where the level of electromagnetic disturbances are likely to exceed the test levels within the scope of this European Standard. In these situations, levels and/or frequencies outside the specified test parameters will need to be applied. In addition, many areas are not homogeneous for their EMC classification; for example, hospitals and airports have areas with different levels of classifications, for the areas outside the generic standard definitions special rules can be applicable.

1 Scope

This European Standard is applicable to industrial trucks, regardless of the power source (called only trucks) as defined in ISO/FDIS 5053-1, and their electrical/electronic systems when used in residential, commercial, light industry and industrial environments (specified in EN 61000-6-3:2007 and EN 61000-6-2:2005).

This European Standard specifies:

- the requirements and the limit values for electromagnetic emission and immunity to external electromagnetic fields;
- the procedure and criteria for testing trucks and their electrical/electronic systems.

This European Standard is not applicable to:

- non-stacking low-lift straddle carriers;
- stacking high-lift straddle carriers;
- any pedestrian propelled trucks, excepted those which are equipped with load handling devices which have electrical powered lifting devices;
- trucks intended for use in the public domain¹⁾ with maximum speed exceeding 30 km/h;
- positioning system of driverless industrial trucks;
- interaction between systems on the trucks;
- interference to on-board radio equipment;
- equipment connected to AC-mains which is only used when the truck is not being operated (e.g. on board charger).

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 55016-1-1, *Specification for radio disturbance and immunity measuring apparatus and methods – Part-1-1: Radio disturbance and immunity measuring apparatus – Measuring apparatus*

EN 55016-1-4, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-4: Radio disturbance and immunity measuring apparatus – Antennas and test sites for radiated disturbance measurements*

EN 55016-2, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 2: Methods of measurement of disturbances and immunity*

EN 61000-4-2, *Electromagnetic compatibility (EMC) – Part 4-2: Testing and measurement techniques – Electrostatic discharge immunity test (IEC 61000-4-2)*

¹⁾ For trucks used in the public domain, other specific European Directives and national requirements are to be applied.

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-