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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Industrial non-destructive testing equipment – Electron linear accelerator

Appareils destinés aux essais non destructifs pour le secteur industriel – Accélérateur électronique linéaire

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

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INDUSTRIAL NON-DESTRUCTIVE TESTING EQUIPMENT – ELECTRON LINEAR ACCELERATOR

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International Standard IEC 62976 has been prepared by technical committee 45: Nuclear instrumentation.

The text of this standard is based on the following documents:

FDIS	Report on voting
45/821/FDIS	45/824/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

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- replaced by a revised edition, or
- amended.

INDUSTRIAL NON-DESTRUCTIVE TESTING EQUIPMENT – ELECTRON LINEAR ACCELERATOR

1 Scope

This document gives the rules of naming, technical requirements, test methods, inspection, marking, packaging, transportation, storage and accompanying documents for electron linear accelerator equipment for Non-Destructive Testing (NDT).

This document applies to NDT electron linear accelerator equipment in the X-ray energy range of 1 MeV to 15 MeV, including the accelerator equipment for radiographic film, computed radiography with imaging plates, real-time imaging, digital detector array and industrial computerized tomography.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC Guide 37:2012, *Instructions for use of products by consumers*

ISO 780:2015, *Packaging – Distribution packaging – Graphical symbols for handling and storage of packages*

ISO 19232-1:2013, *Non-destructive testing – Image quality of radiographs – Part 1: Determination of the image quality value using wire-type image quality indicators*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1
target
area on the surface of accelerating tube outlet on which the electron beam impinges and from which the primary beam of X-rays is emitted

3.2
linear electron accelerator
LINAC
apparatus for producing high energy electrons by accelerating them along a waveguide. The electrons strike a target to produce X-rays

Note 1 to entry: NDT electron linear accelerator, hereinafter referred to as the accelerator.

[SOURCE: ISO 5576:1997, 2.84]