INTERNATIONAL STANDARD

ISO 5579

Third edition
2013-12-01

Non-destructive testing — Radiographic testing of metallic materials using film and X- or gamma rays — Basic rules

Essais non destructifs — Contrôle radiographique des matériaux métalliques au moyen de film et de rayons X et gamma — Règles de base

Reference number
ISO 5579:2013(E)

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Published in Switzerland

Contents

Page

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the rules given in the ISO/IEC Directives, Part 2. www.iso.org/directives

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The committee responsible for this document is ISO/TC 135, *Non-destructive testing*, Subcommittee SC 5, *Radiation methods*.

This third edition cancels and replaces the second edition (ISO 5579:1998), which has been technically revised.

Changes from the second edition include:

— introduction of film in the title — this International Standard is valid only for NDT films as image detectors and not for digital radiographic detectors;

— reference to the state-of-the-art image quality detectors, according to ISO 19232-1 to ISO 19232-4;

— omission of figures with test arrangements (these test arrangements are described in the corresponding application standards);

— extension of applicable X-ray voltages from 500 kV up to max. 1 000 kV, depending on the penetrated wall thickness and material;

— modification of the nomogram of minimum source distances for focal spot sizes from 0,1 mm up to 8 mm;

— update of film system classes (old ISO classes T2 and T3 have been replaced by new classes C3 to C5, according to ISO 11699-1:2008);

— several editorial changes.

Introduction

This International Standard specifies fundamental techniques of radiography, with the object of enabling satisfactory and repeatable results to be obtained economically. The techniques are based on generally accepted practice and the fundamental theory of the subject.

Standards relating to specific applications should conform to these basic rules.