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Non-destructive testing — Automated ultrasonic testing — Selection and application of systems

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National foreword

This Published Document is the UK implementation of ISO/TS 16829:2017.

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

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

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Foreword

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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 editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 135, *Non-destructive testing*, Subcommittee SC 3, *Ultrasonic testing*.

ISO/TS 16829 is based on technical report CEN/TR 15134:2005.

Non-destructive testing — Automated ultrasonic testing — Selection and application of systems

1 Scope

The information in this document covers all kinds of ultrasonic testing on components or complete manufactured structures for either correctness of geometry, for material properties (quality or defects), and for fabrication methodology (e.g. weld testing).

This document enables the user, along with a customer specification, or a given test procedure or any standard or regulation to select:

— ultrasonic probes, probe systems and controlling sensors;

— manipulation systems including controls;

— electronic sub-systems for the transmission and reception of ultrasound;

— systems for data storage and display;

— systems and methods for evaluation and assessment of test results.

With regard to their performance, this document also describes procedures for the verification of the performance of the selected test system.

This includes

— tests during the manufacturing process of products (stationary testing systems), and

— tests with mobile systems.

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 5577, *Non-destructive testing — Ultrasonic testing — Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 5577 apply.

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

— ISO Online browsing platform: available at http://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/