



**International  
Standard**

**ISO 16946**

**Non-destructive testing —  
Ultrasonic testing — Specification  
for a step wedge standard block**

*Essais non destructifs — Contrôle par ultrasons — Spécifications  
relatives au bloc étalon à gradins*

**Third edition  
2024-06**

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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 document 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](http://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*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 138, *Non-destructive testing*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 16946:2017), which has been technically revised.

The main changes are as follows:

- the term “calibration block” is replaced by “standard block”;
- [Figure 1](#) is modified;
- a link to a CAD file of the step wedge standard block is added;
- the structure of [Clause 4](#) is aligned with ISO 2400 and ISO 7963.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

## Introduction

A step wedge standard block makes it possible, during practical testing, to check the setting of the time base and the setting of the sensitivity of the ultrasonic equipment in a simple manner.

A step wedge standard block is not intended to check an ultrasonic instrument but can be used to check some characteristics of the ultrasonic instrument.

Other existing blocks are:

- Calibration block No. 1, specified in ISO 2400.
- Calibration block No. 2, specified in ISO 7963.
- Calibration block for phased array testing, specified in ISO 19675.

NOTE In the next revisions of ISO 2400, ISO 7963 and ISO 19675, the term “calibration block” will be replaced by the term “standard block”.

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