



ISO 2400

**Non-destructive testing —
Ultrasonic testing — Specification
for standard block No. 1**

*Essais non destructifs — Contrôle par ultrasons — Spécifications
relatives au bloc étalon n° 1*

**Third edition
2025-03**



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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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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 2400:2012), which has been technically revised.

The main changes are as follows:

- the wording “calibration block” has been replaced by “standard block”;
- the wording “calibrating” has been replaced by “setting”;
- the velocities shall be determined in three perpendicular directions instead of two directions;
- a maximum allowed difference between determined velocities has been given;
- a link to a CAD file of the standard block has been added.

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.

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Standard block No. 1 is made of steel and may be used for all ultrasonic testing.

Standard block No. 1 makes it possible to check an ultrasonic instrument completely.

Standard block No. 1 makes it possible, during practical testing, to check simply, from time to time, the setting of the time base and the sensitivity of the ultrasonic instrument. Moreover, it is suited to check the beam angle and the probe index point of angle-beam probes.

A smaller and lighter standard block No. 2, which has simpler geometry and offers less scope, is described in ISO 7963.

The International Institute of Welding (IIW) and its members developed the designs of steel calibration blocks in the 1950's and 1960's which were originally indicated as "IIW calibration block 1" and "IIW calibration block 2". These designs have been adopted widely and they form the basis of many blocks currently available.

Some commercially available blocks look similar to standard block No. 1, however such blocks are not necessarily according to this document and can have different features, dimensions or materials.

The details of standard block No. 1, as specified in this document, have been adapted over time.

Some other standard blocks are given in the bibliography.