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Oförstörande provning – Läckprovning – Kalibrering av referensläckage för gaser (ISO 20486:2017)

Non-destructive testing – Leak testing – Calibration of reference leaks for gases (ISO 20486:2017)

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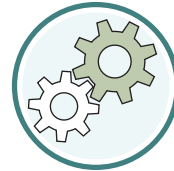
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Denna standard ersätter SS-EN 13192, utgåva 1.

The European Standard EN ISO 20486:2018 has the status of a Swedish Standard. This document contains the official version of EN ISO 20486:2018.

This standard supersedes the Swedish Standard SS-EN 13192, edition 1.

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EUROPEAN STANDARD

EN ISO 20486

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2018

ICS 19.100

Supersedes EN 13192:2001

English Version

Non-destructive testing - Leak testing - Calibration of reference leaks for gases (ISO 20486:2017)

Essais non destructifs - Contrôle d'étanchéité -
Étalonnage des fuites de référence des gaz (ISO
20486:2017)

Zerstörungsfreie Prüfung - Dichtheitsprüfung -
Kalibrieren von Referenzlecks für Gase (ISO
20486:2017)

This European Standard was approved by CEN on 23 December 2017.

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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN ISO 20486:2018) has been prepared by Technical Committee ISO/TC 135 "Non-destructive testing" in collaboration with Technical Committee CEN/TC 138 "Non-destructive testing", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2018, and conflicting national standards shall be withdrawn at the latest by August 2018.

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Endorsement notice

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Non-destructive testing — Leak testing — Calibration of reference leaks for gases

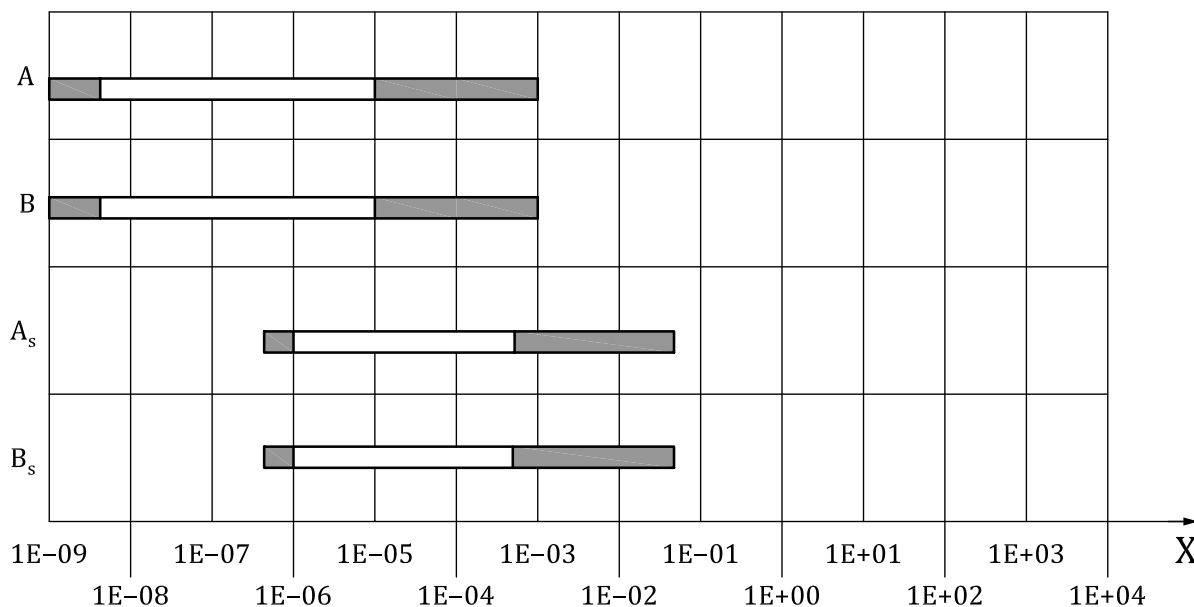
1 Scope

This document specifies the calibration of those leaks that are used for the adjustment of leak detectors for the determination of leakage rate in everyday use. One type of calibration method is a comparison with a reference leak. In this way, the leaks used for routine use become traceable to a primary standard. In other calibration methods, the value of vapour pressure was measured directly or calculated over a known volume.

The comparison procedures are preferably applicable to helium leaks, because this test gas can be selectively measured by a mass spectrometer leak detector (MSLD) (the definition of MSLD is given in ISO 20484).

Calibration by comparison (see methods A, A_s, B and B_s below) with known reference leaks is easily possible for leaks with reservoir and leakage rates below 10⁻⁷ Pa·m³/s.

Figure 1 gives an overview of the different recommended calibration methods.



a) Calibration by comparison