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BSI Standards Publication

Gas welding equipment – Pressure gauges used in welding, cutting and allied processes (ISO 5171:2019)

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National foreword

This British Standard is the UK implementation of EN ISO 5171:2019. It is identical to ISO 5171:2019. It supersedes BS EN ISO 5171:2010, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee WEE/18, Gas welding and cutting appliances.

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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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 5171

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ICS 25.160.30

Supersedes EN ISO 5171:2010

English Version

Gas welding equipment - Pressure gauges used in welding, cutting and allied processes (ISO 5171:2019)

Matériel de soudage au gaz - Manomètres utilisés pour le soudage, le coupage et les techniques connexes (ISO 5171:2019)

Gasschweißgeräte - Manometer für Schweißen, Schneiden und verwandte Prozesse (ISO 5171:2019)

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European foreword

This document (EN ISO 5171:2019) has been prepared by Technical Committee ISO/TC 44 "Welding and allied processes" in collaboration with Technical Committee CEN/TC 121 “Welding and allied processes” the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by November 2019, and conflicting national standards shall be withdrawn at the latest by November 2019.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 5171:2010.

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Endorsement notice

The text of ISO 5171:2019 has been approved by CEN as EN ISO 5171:2019 without any modification.

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

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 8, *Equipment for gas welding, cutting and allied processes*.

This fourth edition cancels and replaces the third edition (ISO 5171:2009) which has been technically revised.

The main changes compared to the previous edition are as follows:

— Clause 7 has been revised;

— Clause 8 has been clarified regarding the amount of test samples to be used;

— editorial changes have been made;

— test B has been added in 5.2.1.2.3 for supplementary leakage rate under the testing conditions of 8.7.2.

Any feedback, question or request for official interpretation related to any aspect of this document should be directed to the Secretariat of ISO/TC 44/SC 8 via your national standards body. A complete listing of these bodies can be found at www.iso.org/members.html. Official interpretations, where they exist, are available from this page: https://committee.iso.org/sites/tc44/home/interpretation.html.

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Gas welding equipment — Pressure gauges used in welding, cutting and allied processes

1 Scope

This document specifies requirements for Bourdon-tube pressure gauges normally used with compressed gas systems at pressures up to 30 MPa (300 bar) in welding, cutting and allied processes. It also covers use for dissolved acetylene and for liquefied gases under pressure.

It does not cover gauges for acetylene in acetylene-manufacturing plants.

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 7-1, *Pipe threads where pressure-tight joints are made on the threads — Part 1: Dimensions, tolerances and designation*

ISO 228-1, *Pipe threads where pressure-tight joints are not made on the threads — Part 1: Dimensions, tolerances and designation*

ISO 497, *Guide to the choice of series of preferred numbers and of series containing more rounded values of preferred numbers*

ISO 4589-2:2017, *Plastics — Determination of burning behaviour by oxygen index — Part 2: Ambient-temperature test*

ISO 9539, *Gas welding equipment — Materials for equipment used in gas welding, cutting and allied processes*

ISO 10102, *Assembly tools for screws and nuts — Double-headed open-ended engineers' wrenches — Outside dimensions*

ISO 14114, *Gas welding equipment — Acetylene manifold systems for welding, cutting and allied processes — General requirements*

ISO 15296, *Gas welding equipment — Vocabulary*

ANSI/ASME B1.20.1[1)], *Pipe threads, general purpose (inch)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 15296 and the following apply.

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

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

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

1) Published by and available from the American National Standards Institute (ANSI), 11 West 42nd Street, New York, NY 10036.

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