SLOVENSKI STANDARD
SIST EN ISO 16784-2:2025

01-februar-2025

Korozija kovin in zlitin - Korozija in obraščanje v industrijskih vodnih hladilnih sistemih - 2. del: Vrednotenje učinkovitosti programov obdelovanja s hladilno tekočino z uporabo opreme za preskuševališča pilotne serije (ISO 16784-2:2024)

Corrosion of metals and alloys - Corrosion and fouling in industrial cooling water systems - Part 2: Evaluation of the performance of cooling water treatment programmes using a pilot-scale test rig (ISO 16784-2:2024)

Korrosion von Metallen und Legierungen - Korrosion und Fouling in industriellen Kühlwassersystemen - Teil 2: Bewertung der Leistung von Kühlwasser-Behandlungsprogrammen unter Anwendung eines Modell Prüfstands (ISO 16784-2:2024)

Corrosion des métaux et alliages - Corrosion et entartrage des circuits de refroidissement à eau industriels - Partie 2: Évaluation des performances des programmes de traitement d'eau de refroidissement sur banc d'essai pilote (ISO 16784-2:2024)

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ICS:

77.060	Korozija kovin	Corrosion of metals

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EUROPEAN STANDARD

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Corrosion of metals and alloys - Corrosion and fouling in industrial cooling water systems - Part 2: Evaluation of the performance of cooling water treatment programmes using a pilot-scale test rig (ISO 16784-2:2024)

Corrosion des métaux et alliages - Corrosion et encrassement des circuits de refroidissement à eau industriels - Partie 2: Évaluation des performances des programmes de traitement de l'eau de refroidissement sur banc d'essai pilote (ISO 16784-2:2024)

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European foreword

This document (EN ISO 16784-2:2024) has been prepared by Technical Committee ISO/TC 156 "Corrosion of metals and alloys" in collaboration with Technical Committee CEN/TC 262 “Metallic and other inorganic coatings, including for corrosion protection and corrosion testing of metals and alloys” the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by June 2025, and conflicting national standards shall be withdrawn at the latest by June 2025.

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ISO 16784-2

Second edition
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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).

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This document was prepared by Technical Committee ISO/TC 156, *Corrosion of metals and alloys*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 262, *Metallic and other inorganic coatings, including for corrosion protection and corrosion testing of metals and alloys,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 16784-2:2006), which has been technically revised.

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The main changes are as follows:

— the Introduction has been modified;

— the Scope has been modified;

— Normative references have been added;

— the Terms and definitions have been updated;

— Clause 4 has been modified to include principles on the simulation process of cooling water treatments;

— the title of Clause 5 has been changed from “Reagents and materials” to “Water for test”;

— the apparatus has been modified: the components and their descriptions have been added;

— the assessment of results has been modified to be divided into three aspects: corrosion phenomena and type of corrosion, pitting corrosion and corrosion rate;

— the bibliography has been modified.

A list of all parts in the ISO 16784 series can be found on the ISO website.

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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Introduction

There is an industrial need to improve the safety, reliability and cost-effectiveness of open recirculating cooling water systems. This is due to the rise in stringent environmental requirements as well as the rise in the costs of water. It is therefore important to establish a standard framework for evaluating the performance of cooling water treatment programmes. The aim is to provide users of cooling systems and vendors of treatment materials for those systems with a procedure to make consistent evaluations of cooling water treatment programmes on a pilot scale.

With the continuous development of circulating water treatment technology, some new circulating water treatment technologies, such as reverse osmosis treatment and electrochemical treatment, have become an important part of cooling water treatment schemes.

This document has been revised and updated to add a new test device along with more detailed descriptions of the components. The simulation device uses steam to heat the heat exchange tube, which solves the problem of uneven heating caused by electric heating and is closer to the actual operating conditions on site.

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