



SLOVENSKI STANDARD
SIST EN ISO 20896-1:2020

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Zobozdravstvo - Digitalni pripomočki za sisteme - 1. del: Metode za ugotavljanje točnosti (ISO 20896-1:2019)

Dentistry - Digital impression devices - Part 1: Methods for assessing accuracy (ISO 20896-1:2019)

Zahnheilkunde - Digitale Abformgeräte - Teil 1: Verfahren zur Bewertung der Genauigkeit (ISO 20896-1:2019)

Médecine bucco-dentaire - Dispositifs d'empreinte numérique - Partie 1: Méthodes d'évaluation de l'exactitude (ISO 20896-1:2019)

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EUROPEAN STANDARD

EN ISO 20896-1

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English Version

Dentistry - Digital impression devices - Part 1: Methods for assessing accuracy (ISO 20896-1:2019)

Médecine bucco-dentaire - Dispositifs d'empreinte numérique - Partie 1: Méthodes d'évaluation de l'exactitude (ISO 20896-1:2019)

Zahnheilkunde - Genauigkeit von handgehaltenen Scanner für CAD/CAM-Systeme am Behandlungsstuhl (ISO 20896-1:2019)

This European Standard was approved by CEN on 27 July 2019.

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European foreword

This document (EN ISO 20896-1:2019) has been prepared by Technical Committee ISO/TC 106 "Dentistry" in collaboration with Technical Committee CEN/TC 55 "Dentistry" 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of an identical text or by endorsement, at the latest by April 2020, and conflicting national standards shall be withdrawn at the latest by April 2020.

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.

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INTERNATIONAL
STANDARD

ISO
20896-1

First edition
2019-08

**Dentistry — Digital impression
devices —**

**Part 1:
Methods for assessing accuracy**

Médecine bucco-dentaire — Dispositifs d'empreinte numérique —

Partie 1: Méthodes d'évaluation de l'exactitude

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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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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 106, *Dentistry*, Subcommittee SC 9, *Dental CAD/CAM Systems*.

A list of all parts in the ISO 20896 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.

Introduction

Dental CAD/CAM systems that produce indirect dental restorations require a three dimensional digitized description, often called a digital impression, of a patient's dentition as a starting point for the design and fabrication of inlays, crowns, bridges and larger fixed or removable appliances. The device that digitizes the three dimensional surface shall be sufficiently accurate to enable the design and manufacture of a clinically acceptable restoration.

This document describes test methods for evaluating the accuracy of digitizing devices that acquire data by direct scanning of a patient's dentition with a manually guided; that is hand-held, device in order to obtain a digital impression. A companion document, ISO 12836, provides test methods for assessing the accuracy of fixed devices for digitizing physical impressions or models cast from such impressions. Separate standards were deemed necessary after it became apparent that two of the test objects described in ISO 12836 are unsuited for successful interpretation of data acquired from these objects with a hand-held scanning device.

NOTE Testing conducted outside the oral cavity on objects that are ideal – in having both surface characteristics suitable for a given scanning technology and sufficient recognizable features for registration algorithms to function well – will give a better result than can be achieved under less ideal, clinical conditions.

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