Dentistry — Information system on the location of dental equipment in the working area of the oral health care provider (ISO 4073:2009)

ICS 11.060.20



## National foreword

This British Standard is the UK implementation of EN ISO 4073:2009. It supersedes BS EN ISO 4073:2005 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee CH/106/4, Dental Instruments and Equipment.

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 4073** 

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Supersedes EN ISO 4073:2005

#### **English Version**

# Dentistry - Information system on the location of dental equipment in the working area of the oral health care provider (ISO 4073:2009)

Art dentaire - Système d'informations relatif à la localisation du matériel dentaire sur le poste de travail du prestataire de soins bucco-dentaires (ISO 4073:2009)

Zahnheilkunde - Informationssystem zur Positionsbestimmung der zahnärztlichen Ausrüstungsgegenstände am Behandlungsplatz (ISO 4073:2009)

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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

#### **Foreword**

This document (EN ISO 4073:2009) 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of an identical text or by endorsement, at the latest by January 2010, and conflicting national standards shall be withdrawn at the latest by January 2010.

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

This document supersedes EN ISO 4073:2005.

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#### **Foreword**

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ISO 4073 was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 6, *Dental equipment*.

This second edition cancels and replaces the first edition (ISO 4073:1980), which has been technically revised. The following changes have been made:

- a) deletion of annex with the recommendation for a paper identification card;
- b) addition of definitions for new devices or improved systems;
- c) deletion of symbols for location of dentist's or dental assistant's instrumentation.

BS EN ISO 4073:2009 **ISO 4073:2009(E)** 

## Introduction

The specification of an information system on the location of dental equipment in the working area of the oral health care provider is of basic importance for an international understanding and communication of the allocation of the dental equipment.

ISO 4073:2009(E)

## Dentistry — Information system on the location of dental equipment in the working area of the oral health care provider

#### 1 Scope

This International Standard specifies an information system for the location of items of dental equipment that are used in the working area of the team of the oral health care provider where examination, treatment and other clinical procedures, with the patient directly involved, are carried out.

The identification system provides the means of giving general information about the presence of items and of describing relevant characteristics concerning dimensional flexibility and adaptability of the items and parts of their accessories.

In addition, this International Standard provides definitions for general terms used in the area of dental equipment.

#### 2 Normative references

The following referenced documents are indispensable for the application 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 1942, Dentistry — Vocabulary

#### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 1942 and the following apply.

#### 3.1

#### dental office

#### dental surgery

facility where patients are received and treated by the dental personnel

#### 3.2

#### oral health care provider

#### dental operator

person who is performing a treatment procedure on a patient

EXAMPLE Dentist, hygienist.

#### 3.3

#### chairside assistant

person supporting the dental operator in the working area

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#### 3.4

#### working area of the oral healthcare provider treatment area of the oral health care provider working space of the oral health care provider

area organized around the oral health care provider and equipped for positioning and treatment of the patient

#### 3.5

#### dental equipment

furniture, machines, apparatus and accessories thereto, specially made for use in the practice of dentistry and/or its associated procedures

#### 3.6

#### dental X-ray equipment

radiographic equipment designed and used in dentistry for diagnostic purposes

#### 3.7

#### dental unit

combination of interconnected dental equipment and dental instruments constituting a functional assembly for use in the provision of dental treatment

#### 3.8

#### patient chair

device designed to support and position the patient for treatment and therefore provided with a range of movements

#### 3.9

#### operator stool

movable seat, adjustable in height, which supports the body of the oral health care provider or of the chairside assistant in a seated position

#### 3.10

#### operating light

device designed for use by an operator for illuminating the oral cavity

#### 3.11

#### powered polymerization activator

device producing light that is applied directly in the oral cavity of a patient to polymerizable dental materials

#### 3.12

#### suction system

low and high volume aspirating units and the corresponding hoses that are connected to a remote suction machine to enable an air flow designed to remove spray, liquids and solids from the mouth of the dental patient during treatment

#### 4 Information system on the location of items of dental equipment

The information system on the location of items of dental equipment in the working area of the oral health care provider consists of a series of concentric circles, marked A, B, C, D, starting from the centre. The centre refers to the mouth of the patient, who is sitting in the patient chair. The radial sectors are symbolized by numbers 1 to 12 on an analogue watch dial (see Figure 1).

Dimensions in metres

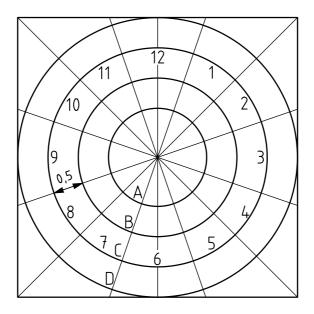


Figure 1 — Information system on the location of items of dental equipment

Four concentric circles around the centre at a distance of 0,5 m each give the means of clearly locating the exact position of the different items. The circles are identified by the letters A, B, C and D.

The location of the items of dental equipment as well as an indication of the working area of the oral health care provider may be given in the reference plan by a sketch.

EXAMPLE 1 A8 = item is at a distance of less than 0,5 m at position 8 o'clock.

EXAMPLE 2 D3 = item is at a distance of between 1,5 m and 2 m at position 3 o'clock.

### **Bibliography**

- [1] ISO 6385, Ergonomic principles in the design of work systems
- [2] ISO 6875, Dental patient chair
- [3] ISO 7493, Dentistry Operator's stool
- [4] ISO 7494-1, Dentistry Dental units Part 1: General requirements and test methods
- [5] ISO 7494-2, Dentistry Dental units Part 2: Water and air supply
- [6] ISO 7785-1, Dental handpieces —Part 1: High-speed air turbine handpieces
- [7] ISO 7785-2, Dental handpieces —Part 2: Straight and geared angle handpieces
- [8] ISO 9680, Dentistry Operating lights
- [9] ISO 9687, Dental equipment Graphical symbols
- [10] ISO 10637, Dental equipment High- and medium-volume suction systems
- [11] ISO 10650-1, Dentistry Powered polymerization activators Part 1: Quartz tungsten halogen lamps
- [12] ISO 10650-2, Dentistry Powered polymerization activators Part 2: Light-emitting diode (LED) lamps
- [13] ISO 11226, Ergonomics Evaluation of static working postures
- [14] ISO 11143, Dentistry Amalgam separators
- [15] ISO 11498, Dental handpieces Dental low-voltage electrical motors
- [16] ISO 13294, Dental handpieces Dental air-motors
- [17] ISO 15606, Dental handpieces Air-powered scaler and scaler tips
- [18] ISO 15883-1, Washer-disinfectors Part 1: General requirements, terms and definitions and tests
- [19] ISO 22374, Dentistry Dental handpieces Electrical-powered scaler and scaler tips
- [20] IEC 60601-1-3, Medical electrical equipment Part 1-3: General requirements for basic safety and essential performance Collateral Standard: Radiation protection in diagnostic X-ray equipment
- [21] DIN 6856-3, Radiological film viewing boxes and viewing conditions Part 3: Radiological film viewing boxes for dentistry
- [22] DIN 13999-1, Dental-Trays

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