

Dental rotary instruments —

Part 3: Specification for steel and carbide burs

The European Standard EN 23823-1:1991 has the status of a
British Standard

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Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Health Care Standards Committee (HCC/-) to Technical Committee HCC/52, upon which the following bodies were represented:

- British Dental Association
- British Dental Trade Association
- British Endodontic Society
- British Society for Restorative Dentistry
- British Society for the Study of Orthodontics
- British Society for the Study of Prosthetic Dentistry
- Dental Education Advisory Council
- Department of Health and Social Security
- Federation of British Dental Industries
- Ministry of Defence
- Scottish Health Services

This British Standard, having been prepared under the direction of the Health Care Standards Committee, was published under the authority of the Board of BSI and comes into effect on 29 May 1987

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National foreword

This Part of BS 6828 has been prepared under the direction of the Health Care Standards Committee. It is identical with ISO 3823 “*Dental rotary instruments*” Part 1:1986 “*Steel and carbide burs*”, prepared by Technical Committee 106 “Dentistry” of the International Organization for Standardization (ISO). The titles of BS 6828-1 to BS 6828-9 are given in BS 6828-1.

In 1991 the European Committee for Standardization (CEN) accepted ISO 3823-1:1986 as European Standard EN 23823-1:1991.

This Part supersedes BS 4178-2:1972, which is withdrawn. The withdrawn standard referred as an interim measure to both the agreed international (ISO) and the traditional UK number series for designation of head size. This Part of BS 6828 refers only to the international (ISO) system. The two standards cover the same range of instruments in general. There are some differences because the revised standard increases the range of nominal sizes for some types but does not refer to nominal sizes 005, 007 or 009.

Terminology and conventions. The text of the International Standard has been approved as suitable for publication as a British Standard without deviation. Some terminology and certain conventions are not identical with those used in British Standards; attention is drawn especially to the following.

The comma has been used as a decimal marker. In British Standards it is current practice to use a full point on the baseline as the decimal marker.

Wherever the words “International Standard” and “part of ISO 3823” appear, referring to this standard, they should be read as “British Standard” and “Part of BS 6828” respectively.

Cross-references

International Standard	Corresponding British Standard
	BS 6828 <i>Dental rotary instruments</i>
ISO 1797:1985	Part 1:1987 <i>Specification for shanks</i> (Identical)
ISO 2157:1984	Part 2:1987 <i>Specification for nominal sizes and designations</i> (Identical)
	Part 5: <i>Number coding system</i>
ISO 6360-1:1985	Section 5.1:1987 <i>Specification for general characteristics</i> (Identical)
ISO 6360-2:1986	Section 5.2:1987 <i>Specification for shape and specific characteristics</i> (Identical)
ISO 8325:1985	Part 9:1987 <i>Methods of test</i> (Identical)

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN title page, pages 2 to 16, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

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Descriptors: Dentistry, dental instrument, dental rotary-cutting instruments, burs (dental), steels, carbides, specifications, dimensions, quality control

English version

Dental rotary instruments — Part 1: Steel and carbide burs

(ISO 3823-1:1986)

Instruments rotatifs dentaires —
Partie 1: Fraises en acier et carbure
(ISO 3823-1:1986)

Zahnärztliche rotierende Instrumente —
Teil 1: Stahl- und Hartmetallbohrer
(ISO 3823-1:1986)

This European Standard was approved by CEN on 1991-07-23. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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Foreword

This European Standard has been taken over by CEN/TC 55 “Dental products” from the work of ISO/TC 106 “Dentistry” of the International Organization for Standardization (ISO).

CEN/TC 55 decided to submit this document to the CEN members for voting by the Unique Acceptance Procedure (UAP). The result was positive.

In accordance with the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 3823-1:1986 was approved by CEN as a European Standard without any modification.

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0 Introduction

This International Standard is one of a series of standards relating to dental instruments. It consists of two parts:

- *Part 1: Steel and carbide burs;*
- *Part 2: Steel and carbide finishing burs.*

The various dimensional and other requirements specified for steel and carbide burs are those considered important to ensure the interchangeability of these instruments.

Attention is drawn to ISO 6360 which specifies a 15-digit number for the identification of dental rotary instruments of all types.

1 Scope and field of application

This part of ISO 3823 specifies dimensions of, and requirements for, the ten most commonly used forms of steel and carbide burs. It is envisaged to extend the scope of this International Standard to cover other forms of burs.

Other characteristics of bur heads, for example spiralled blades, cross-cut, are not covered by this International Standard. These will be dealt with in a future International Standard.

2 References

ISO 1797, *Dental rotary instruments — Shanks.*

ISO 2157, *Dental rotary instruments — Nominal sizes and designation.*

ISO 6360, *Dental rotary instruments — Numbering coding system.*

ISO 8325, *Dental rotary instruments — Test methods.*

3 Classification

Dental burs shall be classified, according to the material of the working part, into the following two types:

- **Type 1:** Steel burs
- **Type 2:** Carbide burs

4 Symbols

- d_1 diameter of the working part, head diameter
- d_2 neck diameter
- l_1 length of the working part, head length
- l_2 overall length

5 Material

The shaft shall be made of steel or other suitable material. The working parts of steel burs shall be made of steel and those of carbide burs of tungsten carbide.

The selection of the type of material and the treatment shall be left to the discretion of the manufacturer.

6 Dimensions and number of blades

All dimensions are in millimetres.

The dimensions, determined as described in ISO 8325, shall be as specified in the tables and as shown in Figure 1 to Figure 10.

For the overall length, see clause 7 and Table 11.

Shank types 1, 2 and 3 shall be in accordance with ISO 1797.

A dash in a column of a table indicates that the particular size is not available.