

Dental rotary instruments —

Part 6: Specification for diamond instruments

This European Standard EN 27711:1989 has the status of a
British Standard

UDC 615.47:616.314-089.818.1:621.922.34

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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The following BSI references relate to the work on this standard:
Committee reference HCC/52
Draft for comment 82/53122 DC

ISBN 0 580 15762 8

Amendments issued since publication

Amd. No.	Date of issue	Comments
6675	May 1991	Indicated by a sideline in the margin

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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 7711:1984 “*Dental rotary instruments — Diamond instruments*”, 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 1989 the European Committee for Standardization (CEN) accepted ISO 7711:1984 as European Standard EN 27711:1989.

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” appear, referring to this standard, they should be read as “Part of BS 6828”.

Cross-references

International Standard	Corresponding British Standard
	BS 6828 <i>Dental rotary instruments</i>
ISO 1797:1985 ^a	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 ^b	Section 5.1:1987 <i>Specification for general characteristics</i> (Identical)
ISO 6360-2:1986 ^b	Section 5.2:1987 <i>Specification for shape and specific characteristics</i> (Identical)
ISO 8325:1985 ^a	Part 9:1987 <i>Methods of test</i> (Identical)

^a Referred to in clause 2 as at the stage of draft, but now published.
^b Referred to in the text as ISO 6360 and as at the stage of draft, but now published.

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 to iv, the EN title page, pages 2 to 24, 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.

UDC 615.47:616.314-089.818.1:621.922.34

Key words: Dentistry, dental equipment, dental rotary-cutting instruments, diamond tools, specifications, dimensions, form

English version

Dentistry — Dental rotary instruments — Diamond instruments

(ISO 7711:1984)

Art dentaire — Instruments rotatifs
dentaires — Instruments diamantés
(ISO 7711-1:1984)

Zahnheilkunde — Zahnärztliche rotierende
Instrumente — Diamantschleifinstrumente
(ISO 7711:1984)

This European Standard was accepted by CEN on 20th December 1989 and is identical to the ISO standard as referred to.

CEN members are bound to comply with the requirements of the CEN/CENELEC Common Rules 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 CEN Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to CEN Central Secretariat has the same status as the official versions.

CEN members are the national standards organizations of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxemburg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

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Brief history

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

The content of this European Standard is identical with the International Standard 7711 of ISO published in 1984.

The results of the Formal Vote being positive, the CEN Technical Board ratified this European Standard on 1989-12-20.

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

0 Introduction

This International Standard is one of a series of standards relating to dental rotary instruments.

The various dimensional and other requirements specified for diamond instruments 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 International Standard specifies the dimensional and other requirements for the 29 most commonly used shapes of diamond instruments. It is envisaged to extend the scope of this International Standard at its first revision to cover other shapes of diamond instruments.

2 References

ISO 1797, *Dental rotary instruments — Shanks*¹⁾.

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

ISO 6360, *Dental rotary instruments — Number coding system*²⁾.

ISO 8325, *Dental rotary instruments — Test methods*²⁾.

3 Symbols for the dimensions

d_1 diameter of working part, head diameter.

d_2 neck diameter measured immediately behind the diamond coating.

d_3 diameter of the coated neck measured at the smallest diameter.

l_1 length of working part, head length.

l_2 overall length.

4 Material

The shaft shall be made of steel or other suitable material. The type of steel and the treatment given to it shall be left to the discretion of the manufacturer. The working part shall be made of diamond grit, bound in either metal, plastics or other materials at the discretion of the manufacturer.

5 Dimensions of working part

All dimensions are in millimetres.

The dimensions determined as described in ISO 8325 shall be as specified in Table 1 to Table 29.

For the overall length see clause 6, Table 30 to Table 33.

Shanks shall be in accordance with ISO 1797.

¹⁾ At present at the stage of draft. (Revision of ISO 1797:1976.)

²⁾ At present at the stage of draft.

5.1 Round head, spherical

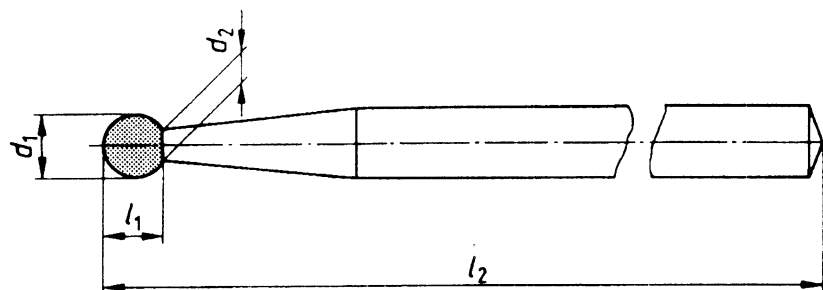


Figure 1

Table 1 — Dimensions

Nominal size	d_1 $\pm 0,1$	l_1 min.	d_2 max.
010	1,0	0,65	0,63
012	1,2	0,85	0,73
014	1,4	1,05	0,83
016	1,6	1,30	0,89
018	1,8	1,50	0,97
021	2,1	1,80	1,05
023	2,3	2,00	1,13
025	2,5	2,15	1,25
027	2,7	2,35	1,33
029	2,9	2,55	1,45
033	3,3	2,90	1,63
036	3,5	3,10	1,67
042	4,2	3,80	2,01

NOTE For overall length l_2 see Table 30.