
**Dentistry — Periodontal curettes, dental
scalars and excavators —**

Part 2:
Periodontal curettes of Gr-type

*Art dentaire — Curettes parodontales, instruments pour détartrage et
excavateurs*

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 13397-2 was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 4, *Dental instruments*.

This second edition cancels and replaces the first edition (ISO 13397-2:1996) and its subsequent Technical Corrigendum (ISO 13397-2:1996/Cor. 1:1997) which have been technically revised to incorporate the following changes:

- a) addition of Gr-type curettes Gr 15 up to Gr 18;
 b) clarification of angles and surfaces.

ISO 13397 consists of the following parts, under the general title *Dentistry — Periodontal curettes, dental scalers and excavators*:

- *Part 1: General requirements*
- *Part 2: Periodontal curettes of Gr-type*
- *Part 3: Dental scalers — H-type*
- *Part 4: Dental excavators — Discoid-type*

It is anticipated that additional types of instruments will form the subject of future parts.

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Dentistry — Periodontal curettes, dental scalers and excavators —

Part 2: Periodontal curettes of Gr-type

1 Scope

This part of ISO 13397 specifies the designs and dimensions for Gr-type periodontal curettes.

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*

ISO 13397-1:1995, *Periodontal curettes, dental scalers and excavators — Part 1: General requirements*
<https://standards.iteh.ai/catalog/standards/sist/69a0d440-388f-41e4-9b03-243900bdc212/iso-13397-2-2005>

3 Terms, definitions and symbols

3.1 Terms and definitions

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

3.1.1

periodontal curette

hand instrument designed for debridement of periodontal pockets and root surfaces

NOTE 1 The instrument shape at the working end is a sharp ground blade, which is rounded, and semicircular in cross-section.

NOTE 2 Periodontal curettes are subdivided in universal curettes and special curettes.

3.1.2

Gr-type

curette designed specifically for the treatment of root surfaces

NOTE 1 The fine differentiated shape of the working end allows the treatment of specific areas of the root surface.

NOTE 2 The cutting angle α formed between the facial surface and the longitudinal axis of the first shank is approximately 70°. The facial surface and the lateral surface are ground to form the cutting edge.

3.1.3

facial surface

ground surface on the inner curvature of the working end of the curette, formed during production of the cutting edge

3.1.4

lateral surface

ground surface of the curette, formed during production of the cutting edge, forms an acute angle (relief angle γ) with the facial surface

3.1.5

1st shank

shank which is directly connected to the working end and which provides with other shanks (e.g. 2nd shank, ...) the connection between working part and handle

3.2 Symbols

b_1 blade width

b_2 blade thickness

h_1 blade height

h_2 shank height

l length to first bend

r radius of blade

α cutting angle

β offset angle

γ relief angle

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4 Design and dimensions

4.1 General

The general requirements for periodontal curettes shall be as specified in ISO 13397-1.

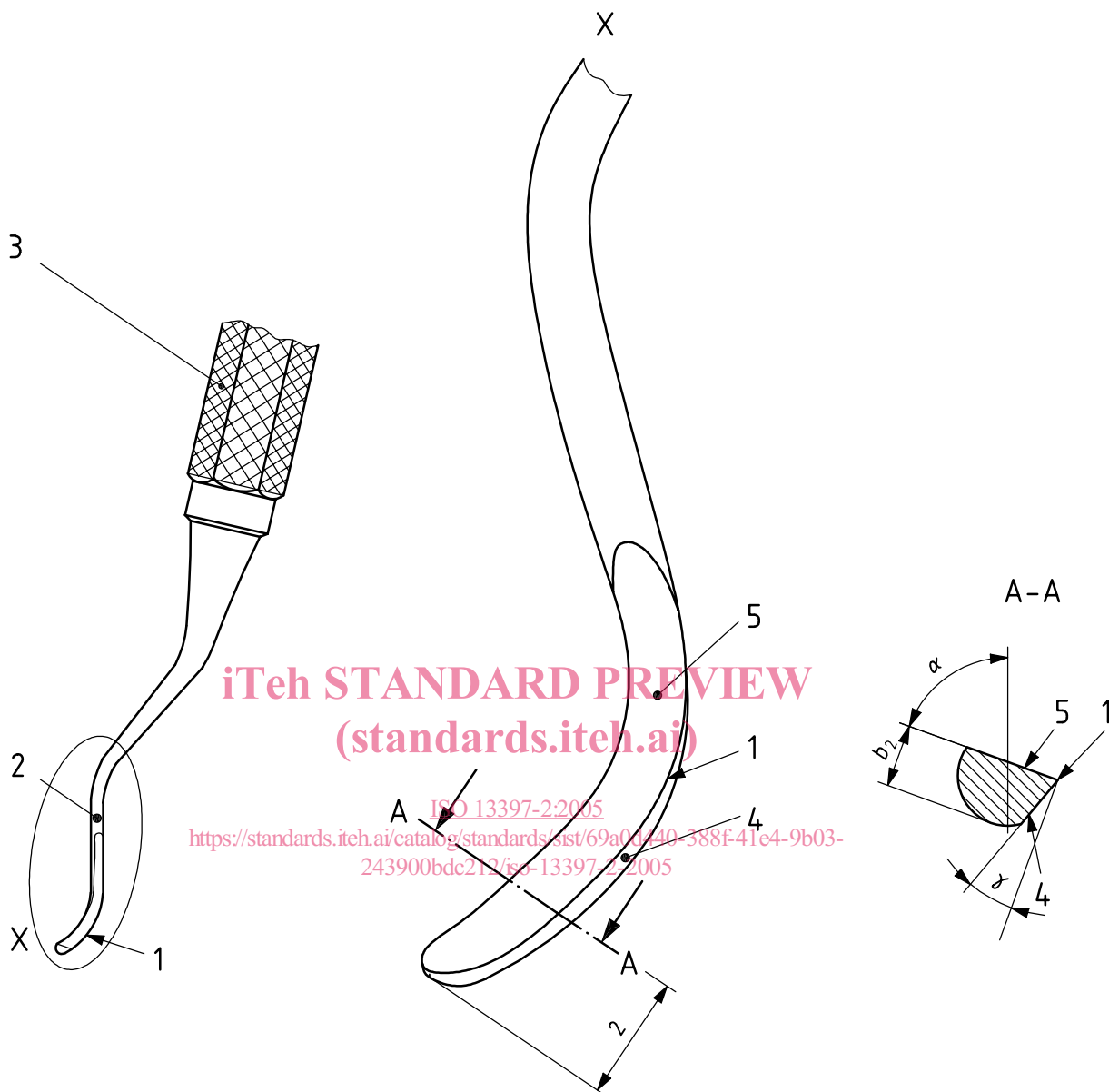
Periodontal curettes shall have the designs shown in Figure 1 and Figure 2 and the dimensions as given in Table 1. The points of measurement associated with the dimensions are listed in Table 2.

ISO 13397-1:1995, Annex A, provides more details of one method of measurement applicable to most types of dental hand instrument.

4.2 Overall length

The overall length of periodontal curettes, irrespective of the design of the instrument, shall be ≤ 178 mm.

Dimensions in millimetres

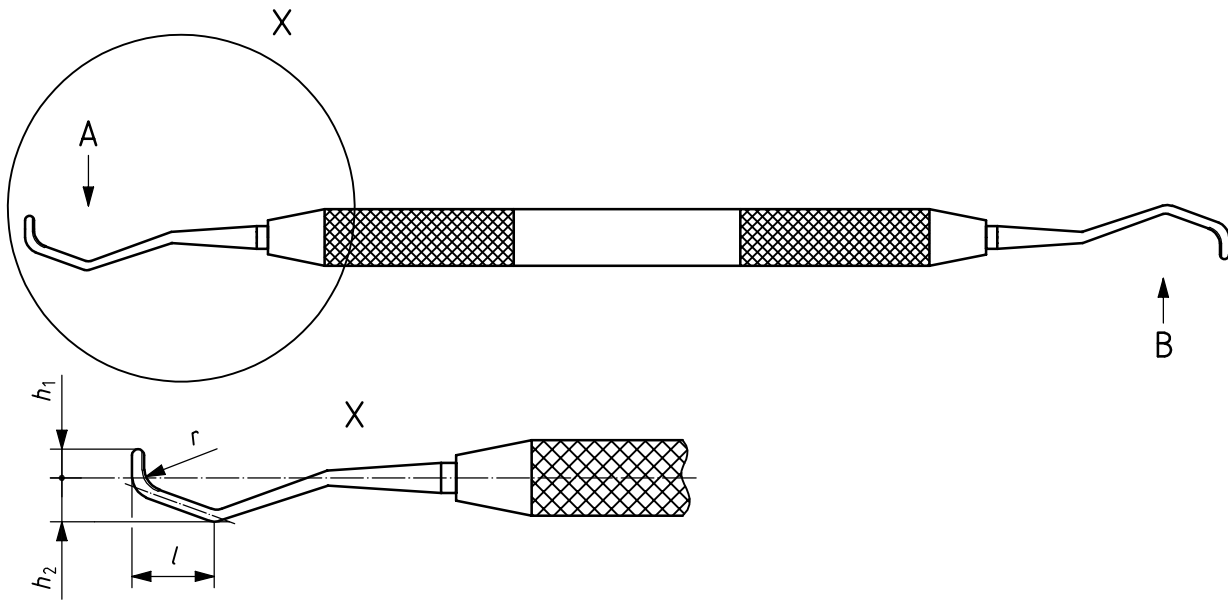


Key

- 1 cutting edge
- 2 1st shank
- 3 handle
- 4 lateral surface
- 5 facial surface

- b_2 blade thickness
- α cutting angle
- γ relief angle

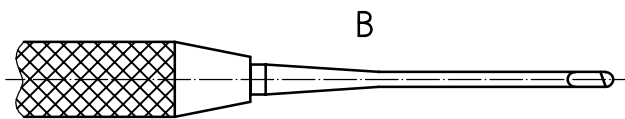
Figure 1 — Designation of surfaces and angles for Gr-type periodontal curettes



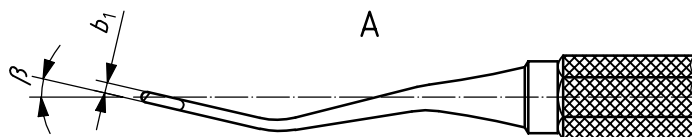
a) Gr-types 1 to 18 (side view)



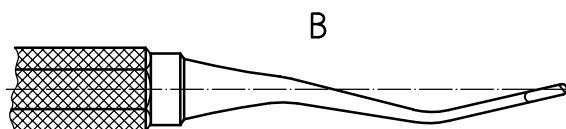
b) Gr-types 1, 3, 5, 7 and 9 (top view)



c) Gr-types 2, 4, 6, 8 and 10 (top view)



d) Gr-types 11, 14, 15 and 18 (top view)



e) Gr-types 12, 13, 16 and 17 (top view)

Figure 2 — Gr-types 1 to 18 periodontal curettes

Table 1 — Dimensions of Gr-type periodontal curettes

Dimensions in millimetres
(angular dimensions in degrees)

Type	b_1 $\pm 0,15$	b_2 $\pm 0,1$	h_1 $\pm 0,3$	h_2 $\pm 0,5$	l $\pm 0,7$	α ± 3	β ± 3	γ
Gr 1 and Gr 2	0,85	0,6	3,5	3	11,2	70	0	a
Gr 3 and Gr 4	0,85	0,6	3,5	4,4	10,2	70	0	a
Gr 5 and Gr 6	0,85	0,6	3,5	3,7	13,8	70	0	a
Gr 7 and Gr 8	0,85	0,6	3,5	5,7	11,3	70	0	a
Gr 9 and Gr 10	0,85	0,6	3,5	8	11,3	70	0	a
Gr 11 and Gr 12	0,85	0,6	3,5	3,7	14,3	70	15	a
Gr 13 and Gr 14	0,85	0,6	3,5	3,7	14,3	70	25	a
Gr 15 and Gr 16	0,85	0,6	3,1	3,6	8,6	70	22	a
Gr 17 and Gr 18	0,85	0,6	2,2	8,6	12,5	70	44	a

^a The value is left to the manufacturer.

Table 2 — Points of measurement for Gr-type periodontal curettes

Dimension		Points of measurement
b_1	Blade width	Measured at a distance of 2 mm from the extremity of the blade.
b_2	Blade thickness	Measured at a distance of 2 mm from the extremity of the blade.
h_1	Blade height	Distance measured from the centreline of the instrument, at right angles to the centreline of the instrument, to the farthest extremity of the blade.
h_2	Shank height	Distance measured from the centreline of the instrument, at right angles to the centreline of the instrument, to farthest external surface on the first bend of the shank.
l	Length to first bend	Distance measured from the farthest extremity of the blade, parallel to the centreline of the instrument, to the highest point on the first bend of the shank.
r	Radius of blade	Radius of curvature on the inner side of the blade (reference dimension only; $r \approx 3$ mm).
α	Cutting angle	Angle formed between the facial surface and the longitudinal axis of the first shank.
β	Offset angle	Angle formed between a line projected from the longitudinal axis of the instrument and the longitudinal axis of the first shank.
γ	Relief angle	Acute angle formed between a perpendicular line to the facial surface and the lateral surface.