
Dentistry — Filling instrument with contra angle

*Médecine bucco-dentaire — Instrument d'obturation à double
angulation*

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Foreword

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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 on 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 the following URL: www.iso.org/iso/foreword.html. (standards.iteh.ai)

This document was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 4, *Dental instruments*.

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Introduction

In dentistry, corresponding to their intended use, filling instruments come into contact with the patient. Consequently, special attention is to be given in respect to (re)processing.

Consideration of ergonomic aspects is also required. This is supported by the specific contra angle design.

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Dentistry — Filling instrument with contra angle

1 Scope

This document specifies requirements and test methods for a filling instrument with contra angle, which is used for the restoration of teeth via the application of polymer-based restorative materials and cements. It also specifies requirements for the design, dimensions and marking.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 6507-1, *Metallic materials — Vickers hardness test — Part 1: Test method*

ISO 6508-1, *Metallic materials — Rockwell hardness test — Part 1: Test method*

ISO 17664, *Sterilization of medical devices — Information to be provided by the manufacturer for the processing of resterilizable medical devices*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

filling instrument

non-active hand-guided dental instrument for applying and modelling polymer-based restorative materials and cements during dental restoration procedures

3.2

contra angle

angle of the second bend of the shank that connects the handle to the *working end* (3.4) and that compensates the first bend so that the working end is in line with the axis of the shank

EXAMPLE See [Figure 1](#).

3.3

filling instrument with contra angle

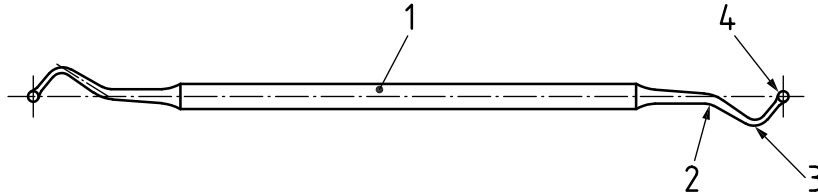
filling instrument (3.1), in which the *working end* (3.4) and the handle axis are on one axis and the shank forms a *contra angle* (3.2)

EXAMPLE See [Figure 1](#).

3.4 working end

most frontal area of the *filling instrument* (3.1) which is used for working

EXAMPLE See [Figure 1](#).



Key

- 1 handle
- 2 first bend of the shank
- 3 second bend of the shank
- 4 working end

Figure 1 — Design of filling instrument with contra angle

4 Classification

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Filling instruments with contra angles are classified into the following types according to the design of the working end:

- Type A: Ball corresponding to [Figure 2](#);
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- Type B: Pear corresponding to [Figure 3](#);
- Type C: Plane pluggers corresponding to [Figure 4](#) or [Figure 5](#);
- Type D: Spatula, curved over edge corresponding to [Figure 6](#);
- Type E: Spatula, curved over surface (beaver tail) corresponding to [Figure 7](#).

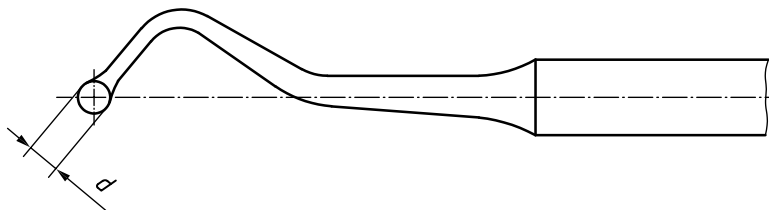


Figure 2 — Type A: Ball

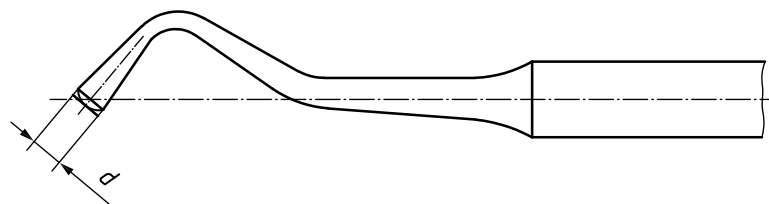


Figure 3 — Type B: Pear

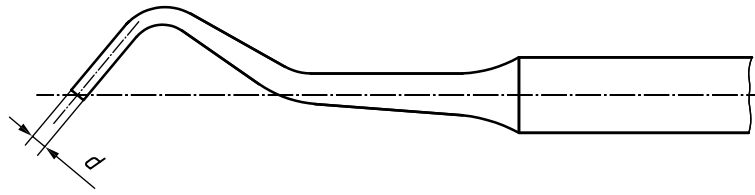


Figure 4 — Type C: Plane plugger, cylindrical

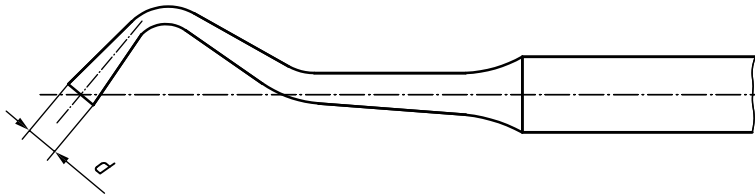
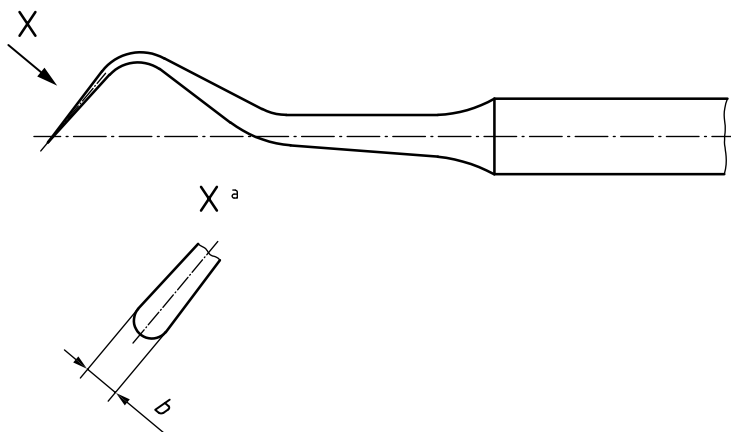


Figure 5 — Type C: Plane plugger, tapered



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 Figure 6 — Type D: Spatula, bent over edge



a Frontal view of enlargement X.

Figure 7 — Type E: Spatula, bent over surface (beaver tail)