

Dentistry — Dental rotary instruments — Number coding system —

Part 2: Shape and specific characteristics

The European Standard EN 26360-2:1991 has the status of a
British Standard

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National foreword

This British Standard has been prepared by Technical Committee CH/52 (formerly HCC/52) and is the English language version of EN 26360-2:1991, published by the European Committee for Standardization (CEN). It is identical with ISO 6360-2:1986 including Amendment 1:1991, published by the International Organization for Standardization (ISO). Amendment 1 to ISO 6360-2:1986 has been indicated by a sideline. BS EN 26360-2:1998 supersedes BS 6828-5.2:1987 which is withdrawn.

Although it is not normal to include in British Standards text written in a language other than English, it has been done in this case for ease of production and as a help to the reader. As this standard is based on the original international standard, reference to page numbers in the text may be incorrect.

Cross-references

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN title page, pages 2 to 80 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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Amendments issued since publication

Amd. No.	Date	Comments

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Descriptors: Dentistry, dental equipment, coding, numeric codes, characteristics

English version

Dentistry: Dental rotary instruments: Number coding system — Part 2: Shape and specific characteristics

(ISO 6360-2:1986 includes Amendment 1:1991)

Art dentaire: Instruments rotatifs dentaires:
Système de codification numérique —
Partie 2: Forme et caractéristiques spécifiques
de réalisation
(ISO 6360-2:1986 inclut l'amendement 1:1991)

Zahnheilkunde: Rotierende
Dentalinstrumente: Nummernsystem —
Teil 2: Form und Ausführung
(ISO 6360-2:1986 enthält Änderung 1:1991)

This European Standard was accepted by CEN on 1991-02-12 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.

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

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Foreword

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 6360-2 of ISO published in 1986 and the Amendment published in 1991.

The results of the Formal Vote being positive, the CEN Technical Board ratified this European Standard on 1991-02-12.

In accordance with the Common CEN/CENELEC Rules 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.

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0 Introduction

A wide variety of dental rotary instruments (including root canal instruments) is manufactured throughout the world for use by the dental profession.

This International Standard was prepared by ISO/TC 106, *Dentistry*, in response to a need by the dental trade and industry and the dental profession for a universal system of classification and designation for these instruments. It establishes a comprehensive system suitable for all dental rotary instruments by the use of a 15-digit number code.

The benefits of this system will only be derived if the system is widely adopted; manufacturers of dental rotary instruments are therefore requested to refer to ISO 6360 in their catalogues.

ISO 6360 consists of two parts:

- *Part 1: General characteristics;*
- *Part 2: Shape and specific characteristics.*

NOTE This International Standard gives terms in English, French, Russian and German. The German language terms have been included at the request of ISO/TC 106 and are published under the responsibility of the member body for Germany, F. R. (DIN). However only the terms in the official ISO languages (English, French and Russian) are to be considered as ISO terms.

Introduction to ISO 6360-2/Amd.1

The number coding system for dental rotary instruments is laid down in ISO 6360-1 and ISO 6360-2. As a result of advances in the application of dental rotary instruments, additional bur shapes continue to be developed. Therefore, in order to ensure that the number coding system laid down in ISO 6360 is as comprehensive as possible, it is necessary to update ISO 6360-1 and ISO 6360-2 regularly.

This amendment comprises the content of the addendum published 1987-02-19 and the additional amendments which were requested in the interim to update ISO 6360-2.

1 Scope and field of application

This International Standard specifies a number coding system for all dental rotary instruments and for several accessories (for example screws) used with the instruments.

This part of ISO 6360 specifies the shapes and specific characteristics (design) of all dental rotary instruments.

0 Introduction

Une gamme étendue d'instruments rotatifs dentaires (y compris les instruments pour canaux radiculaires) sera fabriquée dans tous les pays du monde pour usage par la profession dentaire.

La présente Norme internationale a été élaborée par l'ISO/TC 106, *Produits et matériel pour l'art dentaire* pour répondre au besoin de l'industrie, du commerce et des praticiens dentaires de disposer d'un système universel de classification et de désignation de ces instruments dentaires. Elle établit une codification complète de tous les instruments rotatifs dentaires par l'usage d'un code numérique en quinze chiffres. Ce système ne sera bénéfique que s'il est largement adopté; par conséquent, il est demandé aux fabricants d'instruments rotatifs dentaires de faire référence à l'ISO 6360 dans leurs catalogues.

L'ISO 6360 comporte deux parties:

- *Partie 1: Caractéristiques générales;*
- *Partie 2: Forme et caractéristiques spécifiques de réalisation.*

NOTE La présente Norme internationale donne les termes en anglais, français, russe et allemand. Les termes en langue allemande ont été inclus à la demande de l'ISO/TC 106, et sont publiés sous la responsabilité du comité membre de l'Allemagne, R.F. (DIN). Toutefois, seuls les termes donnés dans les langues officielles de l'ISO (anglais, français et russe) peuvent être considérés comme termes ISO.

Introduction à l'ISO 6360-2/Amd.1

Le système de codification numérique des instruments rotatifs dentaires est fixé dans l'ISO 6360-1 et l'ISO 6360-2. En raison des développements ultérieurs dans l'application aux instruments rotatifs dentaires, des formes supplémentaires de fraises ont vu le jour et seront prises en compte. Par conséquent, afin d'être sûr que le système de codification numérique fixé dans l'ISO 6360 est complet, il est nécessaire d'actualiser régulièrement l'ISO 6360-1 et l'ISO 6360-2.

Le présent amendement comprend l'additif publié le 1987-02-19 ainsi que les additifs additionnels qui ont été demandés entretemps pour mettre à jour l'ISO 6360-2.

1 Objet et domaine d'application

La présente Norme internationale spécifie un système de codification numérique de tous les instruments rotatifs dentaires et de plusieurs accessoires (par exemple les vis) utilisés avec les instruments.

La présente partie de l'ISO 6360 Spécifie les formes et caractéristiques spécifiques de réalisation (conception) de tous les instruments rotatifs dentaires.

2 References

ISO 1797, *Dental rotary instruments — Shanks.*

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

ISO 3630, *Dental root canal instruments.*

ISO 6360-1, *Dental rotary instruments — Number coding system — Part 1: General characteristics.*

3 General

Part 1 of ISO 6360 specifies the coding system itself and lays down the numbers for the general characteristics. This part of ISO 6360 lays down the numbers for the shapes of the instruments and for the specific characteristics.

3.1 Numbers for the shapes

3.1.1 The three-digit number for the shape comprises the digits in positions 7 to 9 in the complete number for the instrument (see clause 3 of ISO 6360-1).

Thus the location of the three digits in the whole identification number is

000 000 000 000 000

The main types of instrument are given on pages 6 to 12 and these pages contain a survey of all types of instrument covered by this International Standard. Shape numbers and other details are given on pages 12 to 60.

3.1.2 For shape/design variations in one type of instrument a similar three-digit number is used but different numbers are given to each individual pattern. For example cylindrical instruments may have numbers 107 to 123. The variations may be in the shape, in the angle, or in the length of the head. Where several variations of one shape exist and yet it is not necessary to distinguish between them, only the first number for the shape is used: for example number 107, number 137, number 139 (see Table 2).

3.1.3 In the case of wheels, the effective length of which is 5 % to 100 % of the diameter, all shapes are classified (for example see Table 2).

2 Références

ISO 1797, *Instruments rotatifs dentaires — Dimensions d'ajustement.*

ISO 2157, *Fraises et instruments de coupe utilisés en art dentaire — Dimensions nominales et désignation des parties actives.*

ISO 3630, *Instruments pour canaux radiculaires, utilisés en art dentaire.*

ISO 6360-1, *Instruments rotatifs dentaires — Système de codification numérique — Partie 1: Caractéristiques générales.*

3 Généralités

La partie 1 de l'ISO 6360 spécifie le système de codification lui-même et fixe les numéros d'identification pour les caractéristiques générales. La présente partie de l'ISO 6360 fixe les numéros d'identification pour les formes d'instruments et pour les caractéristiques spécifiques de réalisation.

3.1 Numéros des formes

3.1.1 Le numéro de code à trois chiffres pour identifier la forme comprend les chiffres en position 7 à 9 du code complet pour les instruments (voir chapitre 3 de l'ISO 6360-1).

Ainsi, la position des trois chiffres dans le code complet d'identification est

000 000 000 000 000

Les principaux types d'instruments sont donnés en pages 6 à 12 et ces pages représentent tous les types d'instruments couverts par la présente Norme internationale. Les détails concernant les numéros d'identification de la forme sont donnés en pages 12 à 60.

3.1.2 Pour les variantes de la forme/conception d'un seul type d'instrument, un numéro similaire de code à trois chiffres est utilisé mais des numéros d'identification différents sont donnés à chaque «modèle» individuel. Par exemple, les instruments cylindriques peuvent avoir les numéros 107 à 123. Les différences peuvent être dans la forme, dans la conicité ou dans la longueur de la tête. Là où plusieurs variantes d'une forme existent et là où il n'est pas nécessaire de les distinguer les unes des autres, seul le premier numéro d'identification pour la forme est employé: par exemple, numéro de code 107, numéro de code 137, numéro de code 139 (voir Tableau 2).

3.1.3 Dans le cas des roues, toutes les formes sont classées sur la base de longueurs effectives comprises entre 5 % et 100 % du diamètre (par exemple, voir Tableau 2).

3.1.4 In the case of discs, the effective lengths of which are less than 5 % of the diameter, all shapes are classified (for example see Table 2).

3.2 Numbers for other specific characteristics (for example design)

The three-digit number for other specific characteristics (for example design) comprises the three digits in positions 10 to 12 in the complete number for the instrument (see clause 3 of ISO 6360-1).

Thus the location of the three digits in the whole identification number is

000 000 000 000 000

The numbers on pages 12 to 60 signify for instruments such as burs, cutters, root canal instruments and mandrels the differences in the number of blades and types of teeth, and for diamond instruments and grinding instruments they signify the type of grit and the binding.

These three-digit numbers also cover some accessories used with the instruments (for example screws).

4 Shape and design

4.1 Synopsis for shapes

For details see the pages indicated in the second and fourth columns of Table 1.

3.1.4 Dans le cas des disques, toutes les formes sont classées sur la base de longueurs effectives inférieures à 5 % du diamètre (par exemple, voir Tableau 2).

3.2 Numéros d'identification pour d'autres caractéristiques spécifiques de réalisation (par exemple conception)

Le numéro de code à trois chiffres pour identifier les autres caractéristiques spécifiques de réalisation (par exemple, conception) comprend les trois chiffres en position 10 à 12 du code complet pour l'instrument. (Voir le chapitre 3 de l'ISO 6360-1.)

Ainsi, la position du numéro de code à trois chiffres est

000 000 000 000 000

Aux pages 12 à 60 les numéros d'identification des instruments tels les fraises, les fraises techniques (instruments de coupe), les instruments pour canaux radiculaires et les mandrins tiennent compte tant du nombre que du type de dents; ils tiennent compte, pour les instruments abrasifs et diamantés, des types de grains et des liants.

Ces numéros de code à trois chiffres couvrent également quelques accessoires (par exemple, les vis utilisées avec les instruments).

4 Forme et conception

4.1 Tableau synoptique des formes

Pour les détails, voir les pages mentionnées dans la colonne de droite du Tableau 1.

Table 1 — Synopsis

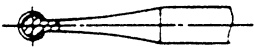
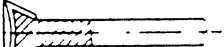
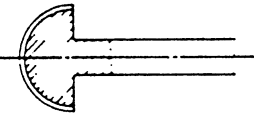
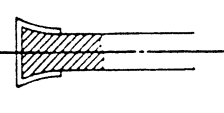
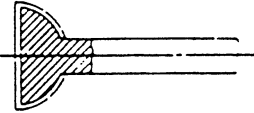
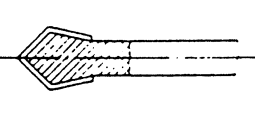
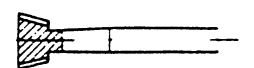
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Table 1 — Synopsis

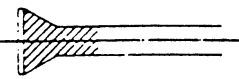
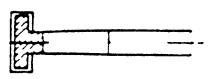
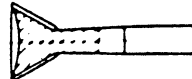
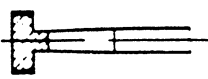
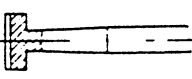
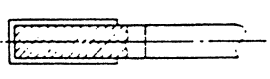
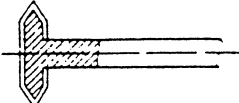
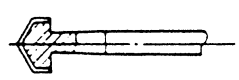
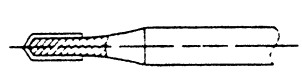
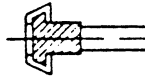
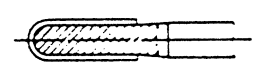
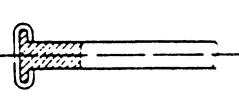
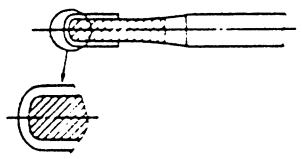
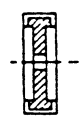
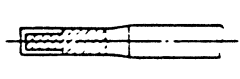
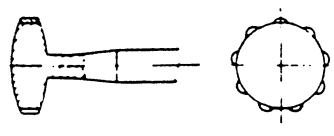
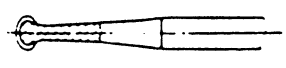
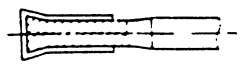
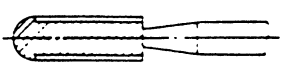
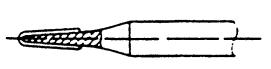
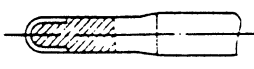
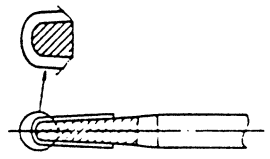
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Table 1 — Synopsis

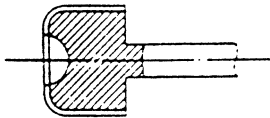
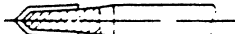
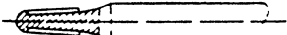
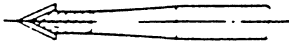
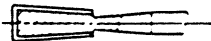
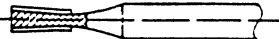
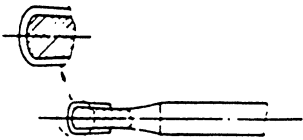
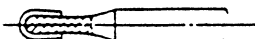
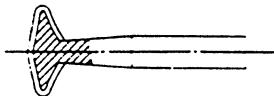
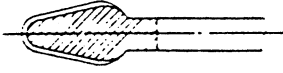
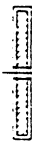
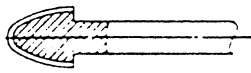
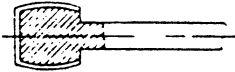
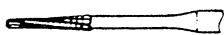
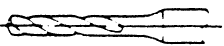
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Table 1 — Synopsis

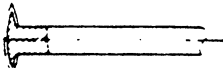
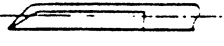
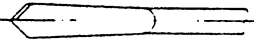
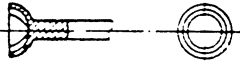
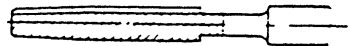
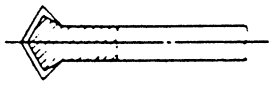
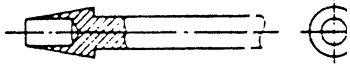
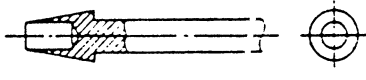
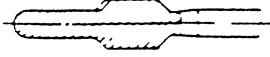
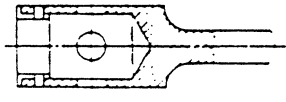
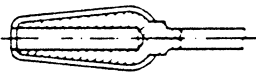
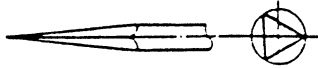
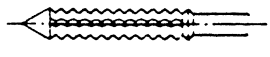
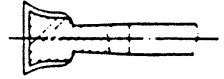
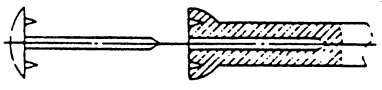
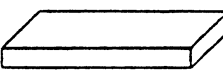
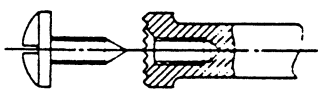
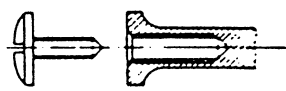
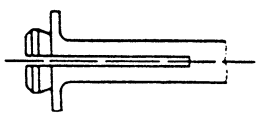
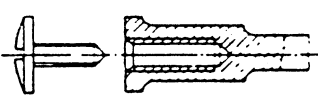
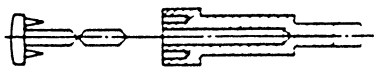
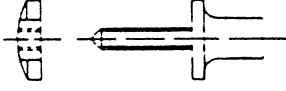
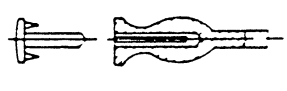
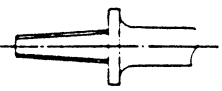
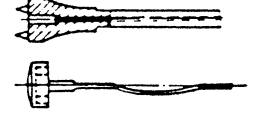
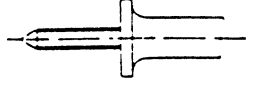
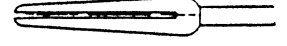
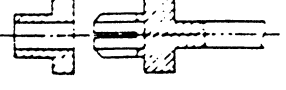
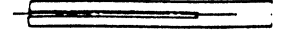
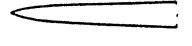
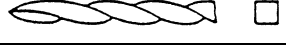
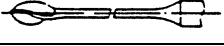
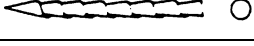
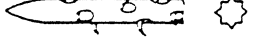
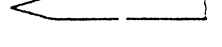
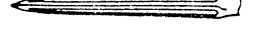
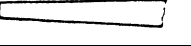
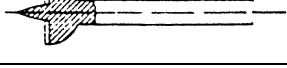
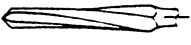
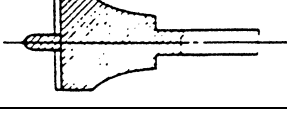
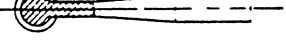
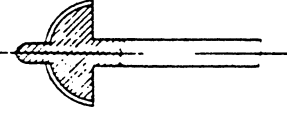
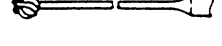
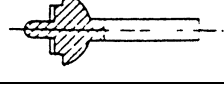
Illustration	Page	Illustration	Page
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Table 1 — Synopsis

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4.2 Detailed table

For more specific details see 5.1, 5.2 and 5.3:

5.1 Tothing for burs and cutters (page 60).

5.2 Characterization for root canal instruments, mandrels and special instruments (page 70).

5.3 Grit types and binding for grinding instruments (page 78).

4.2 Tableau détaillé

Pour des détails plus précis, voir 5.1; 5.2 et 5.3:

5.1 Dentures pour fraises et instruments de coupe (page 60).

5.2 Caractéristiques de réalisation des instruments pour canaux radiculaires, mandrins et instruments spéciaux (page 70).

5.3 Types de grain et liant pour instruments abrasifs (page 78).

Table 2 — Shapes and design

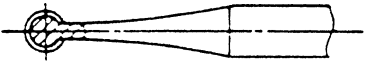
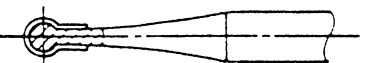
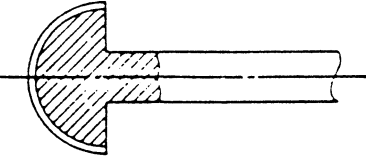
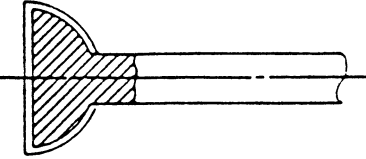
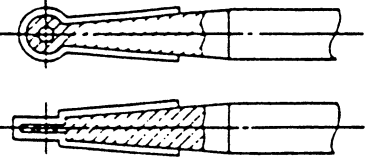
Illustration	Designation	Number coding
	E : spherical (round) F : sphérique R : сферическая D : rund	001
	E : spherical (round) with collar (extension) F : sphérique avec extension R : комбинированная сферическая с конусной рабочей шейкой D : rund mit Ansatz	002
	E : hemispherical (half round) F : hémisphérique R : полусферическая D : halbrund vorn	003
	E : hemispherical inverted F : hémisphérique inversée R : полусферическая плоскосторцовая D : halbrund hinten	004
	E : spherical, flattened and pierced, with collar F : sphérico/tronconique aplatie et percée R : комбинированная сферическая с конусной рабочей шейкой и поперечным отверстием в сфере D : rund abgeflacht mit Ansatz und Querbohrung	005

Table 2 — Shapes and design

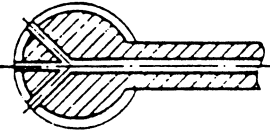
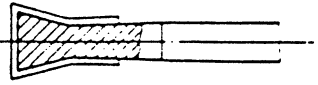
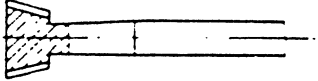
Illustration	Designation	Number coding
	E : spherical, hollow axis, with cooling canals F : sphérique, à axe creux et conduits pour refroidissement R : D : rund, durchbohrt, mit Kühlbohrungen	007
	E : inverted, truncated, conical F : tronconique inversée R : обратноконусная D : umgekehrter Kegel	010
	$\alpha \leq 15^\circ$	011
	$15^\circ < \alpha \leq 30^\circ$	012
	$30^\circ < \alpha \leq 60^\circ$	013
	$60^\circ < \alpha$	014
	E : inverted, truncated, conical, with shoulder, short F : tronconique inversée à épaulement, courte R : обратноконусная с бортом у вершины D : umgekehrter Kegel mit Anschlag, kurz	015
	E : <i>ditto</i> , standard F : <i>dito</i> , normale R : та же, стандартная D : <i>dito</i> , normal	016
	E : inverted conical, with collar F : conique inversée/tronconique R : комбинированная обратноконусная с конусной рабочей шейкой D : umgekehrter Kegel mit Ansatz	019
	E : inverted, truncated, conical, side cutting only F : tronconique inversée à coupe uniquement latérale R : обратноконусная с боковой нарезкой D : umgekehrter Kegel, Seite schneidend	020

Table 2 — Shapes and design

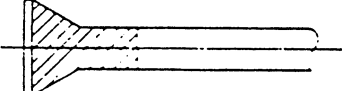
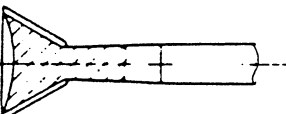
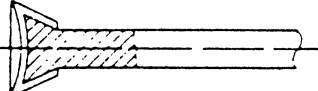
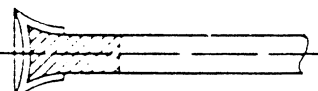
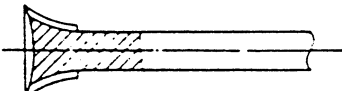
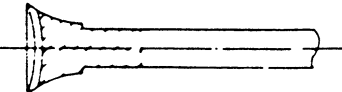
Illustration	Designation	Number coding
	E : inverted conical, end cutting only F : conique inversée coupant uniquement en bout R : обратноконусная с нарезкой по торцу D : umgekehrter Kegel, Stirn schneidend	021
	E : inverted conical, side cutting only with concave end F : conique inversée à coupe latérale seulement, bout concave R : обратноконусная с боковой нарезкой и вогнутым торцом D : umgekehrter Kegel, nur Seite schneidend, konkave Stirn	022
	E : inverted conical, concave end F : conique inversée à bout concave R : обратноконусная с вогнутым торцом D : umgekehrter Kegel, konkave Stirn	023
	E : inverted conical, concave end and side F : hyperboloïde inversée à bout concave R : обратноконусная с вогнутыми боковой поверхностью и торцом D : umgekehrter Kegel konkav, mit konkaver Stirn	024
	E : inverted conical, concave end and side, side cutting only F : hyperboloïde inversée à coupe uniquement latérale R : обратноконусная с вогнутыми торцом и боковой нарезанной поверхностью D : umgekehrter Kegel, konkav, konkave Stirn, nur Seite schneidend	025
	E : inverted conical, concave end and side, end cutting only F : hyperboloïde inversée tronquée à bout concave, coupant uniquement en bout R : обратноконусная с вогнутыми боковой поверхностью и нарезанным торцом D : umgekehrter Kegel, konkav, konkave Stirn, nur Stirn schneidend	026

Table 2 — Shapes and design

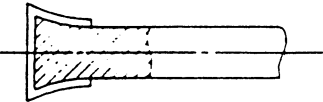
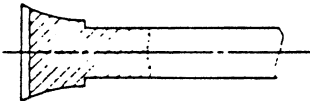
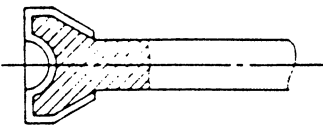
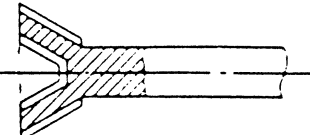
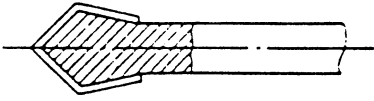
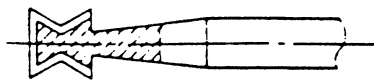
Illustration	Designation	Number coding
	E : inverted, conical, concave side F : hyperboloïde inversée R : обратноконусная с вогнутой боковой поверхностью D : umgekehrter Kegel, konkav	027
	E : inverted conical with concave side, end cutting only F : hyperboloïde inversée tronquée, coupant uniquement en bout R : обратноконусная с вогнутой боковой поверхностью и нарезанным торцом D : umgekehrter Kegel, konkav, nur Stirn schneidend	028
	E : cylindrical/inverted conical with hemispherical recessed end F : cylindrico/conique inversée à évidement distal hémisphérique R : комбинированная цилиндрическая с обратным конусом и вогнутым торцом D : zylindrisch, umgekehrter Kegel, Stirn halbrund, konkav	029
	E : inverted conical with truncated conical recessed end F : conique inversée, à évidement distal tronconique R : обратноконусная с дистальным углублением в виде усеченного конуса D : umgekehrter Kegel mit Aussparung	030
	E : conical/inverted conical F : conico/conique inversée R : комбинированная коническая обратноконусная D : umgekehrter Kegel, spitz	031
	E : diabolo F : tronconique inversée/tronconique symétrique R : комбинированная двухконусная с конусами, соединенными в вершине D : Diabolo	032

Table 2 — Shapes and design

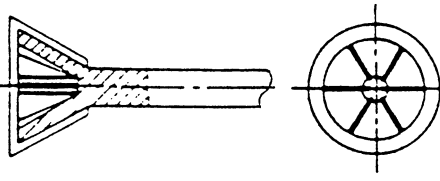
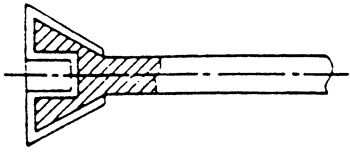
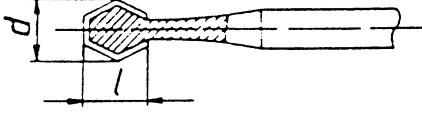
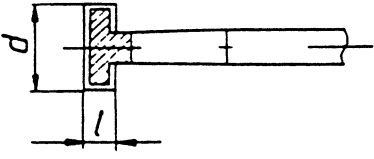
Illustration	Designation	Number coding
	E: pointed inverted conical, blended F: conique inversée, pointue, arrondie R: D: umgekehrter Kegel, spitz, abgerundet	033
	E: inverted conical, hollow, with slots F: conique inversée, creuse, avec fentes R: D: umgekehrter Kegel mit Aussparung und Lamellen	034
	E: inverted conical with cylindrical recess F: conique inversée, à évidement cylindrique R: D: umgekehrter Kegel mit zylindrischer Aussparung	035
	E: truncated conical/inverted conical symmetrical, short F: tronconico/conique inversée, symétrique, courte R: комбинированная двухконусная с конусами, соединенными в основании D: Doppelkegel, kurz $l \leq d$	037
	E: <i>ditto</i> , standard F: <i>dito</i> , normale R: та же, стандартная D: <i>dito</i> , normal $d < l \leq 1,5 d$	038
	E: <i>ditto</i> , long F: <i>dito</i> , longue R: та же, длинная D: <i>dito</i> , lang $1,5 d < l$	039
	E: wheel F: roue R: колесовидная D: Rad	040
	$5 \% \times d < l \leq 25 \% \times d$	041
	$25 \% \times d < l \leq 50 \% \times d$	042
	$50 \% \times d < l \leq 100 \% \times d$	043

Table 2 — Shapes and design

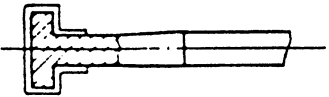
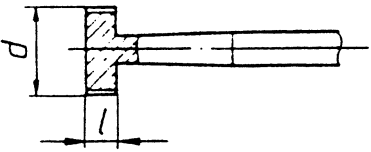
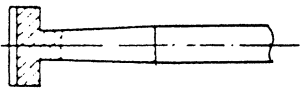
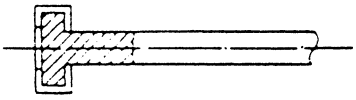
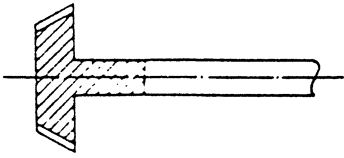
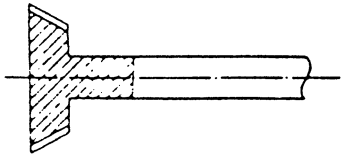
Illustration	Designation	Number coding
	E : wheel with collar F : roue avec extension R : комбинированная двухколесовидная D : Rad mit Ansatz	044
	E : wheel, peripheral cutting only, narrow F : roue, à coupe uniquement périphérique, étroite R : колесовидная с нарезкой по боковой поверхности D : Rad, Umfang schneidend, schmal $5 \% \times d < l \leq 25 \% \times d$	045
	E : <i>ditto</i> , standard F : <i>ditto</i> , normale R : та же, стандартная D : <i>ditto</i> , normal $25 \% \times d < l \leq 50 \% \times d$	046
	E : wheel, end cutting only F : roue, coupant uniquement en bout R : колесовидная с нарезкой по торцу D : Rad, nur Stirn schneidend	047
	E : wheel, rim cutting only F : roue, coupant uniquement à la périphérie et sur la partie adjacente R : колесовидная с нарезкой по поверхности D : Rad, nur Rand schneidend	048
	E : wheel, truncated conical, peripheral cutting F : roue tronconique, à coupe uniquement périphérique R : колесовидная конусная D : Rad, konisch, Umfang schneidend	049
	E : wheel, inverted truncated conical, peripheral cutting only F : roue tronconique inversée, à coupe uniquement périphérique R : колесовидная обратноконусная D : Rad, umgekehrt konisch, nur Umfang schneidend	050

Table 2 — Shapes and design

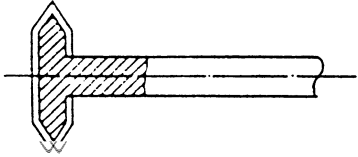
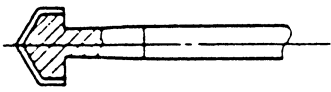
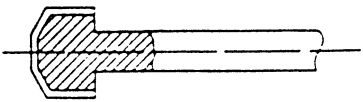
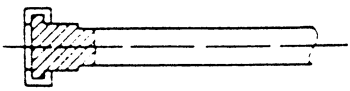
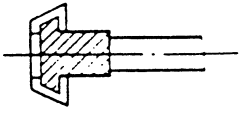
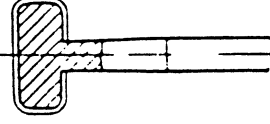
Illustration	Designation	Number coding
	E : wheel, truncated conical/inverted truncated conical, symmetrical F : roue tronconico/tronconique inversée, symétrique R : комбинированная двухконусная колесовидная с конусами, соединенными в основании D : Rad, spitz	051
	E : wheel, conical/cylindrical F : roue conico/cylindrique R : комбинированная коническо-цилиндрическая D : Rad, Stirn spitz	052
	E : wheel, truncated conical/cylindrical F : roue tronconico/cylindrique R : комбинированная цилиндрическая с усеченным конусом D : Rad, Stirn mit Fase	053
	E : wheel, with shoulder, rim cutting only F : roue à épaulement, coupant uniquement à la périphérie et sur la partie adjacente R : комбинированная колесовидно-цилиндрическая с нарезкой по поверхности колеса D : Rillenschleifer gerade mit Tiefenanschlag	054
	E : wheel, truncated conical with shoulder, rim cutting only F : roue tronconique à épaulement, coupant unique-ment à la périphérie et sur la partie adjacente R : комбинированная колесовидно-цилиндрическая с нарезкой по поверхности конического колеса D : Rillenschleifer konisch mit Tiefenanschlag	055
	E : wheel with rounded edges F : roue pour congés (cylindrique à bords arrondis) R : колесовидная с закругленными краями и нарезкой по поверхности D : Rad mit abgerundeten Kanten	056

Table 2 — Shapes and design

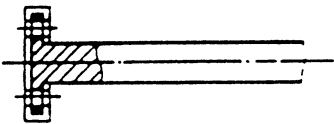
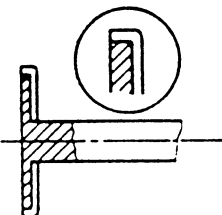
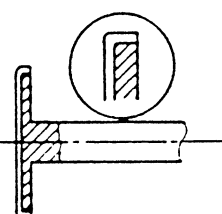
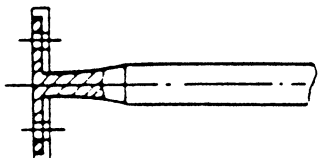
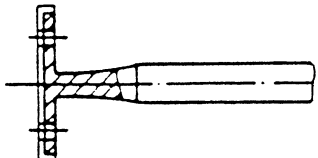
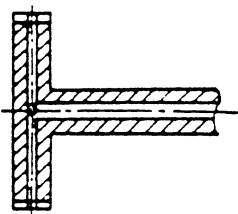
Illustration	Designation	Number coding
	E : wheel, perforated F : roue perforée R : колесовидная с отверстиями D : Rad, perforiert	057
	E : wheel, proximal and peripheral cutting F : roue, à coupe proximale et périphérique R : колесовидная с нарезкой по боковой и обратной поверхностям D : Rad hinten schneidend	058
	E : wheel, distal and peripheral cutting F : roue, à coupe distale et périphérique R : колесовидная с нарезкой по боковой и торцевой поверхностям D : Rad, vorn schneidend	059
	E : wheel, perforated, proximal and peripheral cutting F : roue perforée/à coupe proximale et périphérique R : колесовидная с отверстиями и нарезкой по боковой и обратной поверхностям D : Rad, hinten schneidend, perforiert	060
	E : wheel, perforated, distal and peripheral cutting F : roue perforée, à coupe distale et périphérique R : колесовидная с отверстиями и нарезкой по боковой и торцевой поверхностям D : Rad, vorn schneidend, perforiert	061
	E : wheel, narrow peripheral cutting, with cooling canals F : roue à coupe périphérique étroite, à axe creux et conduits pour refroidissement R : D : Rad schmal, Umfang schneidend, durchbohrt mit Kühlbohrungen $5 \% \times d^* < l^{**} \leq 25 \% \times d^*$	062
*d = diameter of the working part diamètre de la partie active		** l = length of the working part longueur de la partie active

Table 2 — Shapes and design

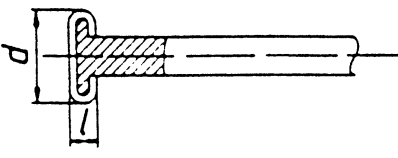
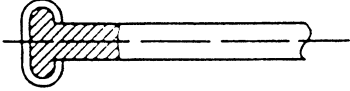
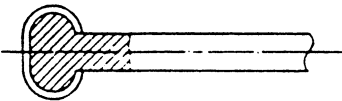
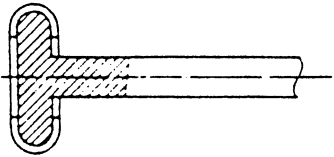
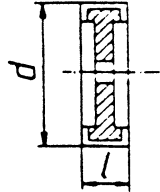
Illustration	Designation	Number coding
	E : wheel, narrow, half-circle rim F : roue étroite, à périphérie demi-cercle R : колесовидная закругленная по боковой поверхности, узкая D : Reifen, schmal $5 \% \times d < l \leq 25 \% \times d$	067
	E : <i>ditto</i>, standard F : <i>dito</i>, normale R : та же, стандартная D : <i>dito</i>, normal $25 \% \times d < l \leq 50 \% \times d$	068
	E : <i>ditto</i>, broad F : <i>dito</i>, large R : та же, широкая D : <i>dito</i>, breit $50 \% \times d < l \leq 100 \% \times d$	069
	E : wheel, half circle rim, rim cutting only F : roue à périphérie demi-cercle, à coupe uniquement latérale R : колесовидная закругленная по боковой поверхности увеличенного диаметра D : Reifen, Rand schneidend	072
	E : wheel, recessed, unmounted, narrow F : roue évidée, non montée, étroite R : колесовидная, полая, узкая, без хвостовика D : Rad, schmal, Rand schneidend $5 \% \times d < l \leq 25 \% \times d$	075
	E : <i>ditto</i>, standard F : <i>dito</i>, normale R : та же, стандартная D : <i>dito</i>, normal, Rand schneidend $25 \% \times d < l \leq 50 \% \times d$	076

Table 2 — Shapes and design

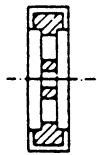
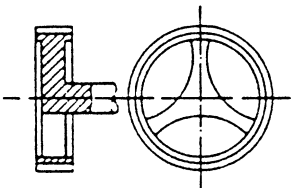
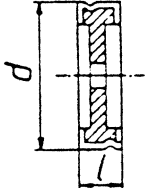
Illustration	Designation	Number coding
	E : <i>ditto</i> , broad F : <i>dito</i> , large R : та же, широкая D : <i>dito</i> , breit, Rand schneidend $50 \% \times d < l \leq 100 \% \times d$	077
	E : wheel, recessed, unmounted, perforated, rim cutting F : roue évidée, non montée, perforée, coupant uniquement à la périphérie et sur la partie adjacente R : колесовидная, полая, с отверстиями, без хвостовика D : Rad, perforiert, nut Rand schneidend	080
	E : wheel, windowed, peripheral cutting only F : roue fenêtrée, à coupe uniquement périphérique R : колесовидная с отверстиями D : Rad mit Fenster, nur Rand schneidend	083
	E : wheel, recessed, unmounted, narrow, helicoidal groove, rim cutting F : roue évidée, non montée, étroite, à sillon hélicoïdal, coupant à la périphérie et sur la partie adjacente R : колесовидная без хвостовика, узкая, со спиральными бороздками на прилегающей части D : Rad, schmal, Rillen spiralförmig, Rand schneidend $5 \% \times d < l \leq 25 \% \times d$	084
	E : <i>ditto</i> , standard F : <i>dito</i> , normale R : та же, стандартная D : <i>dito</i> , normal $25 \% \times d < l \leq 50 \% \times d$	085

Table 2 — Shapes and design

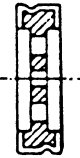
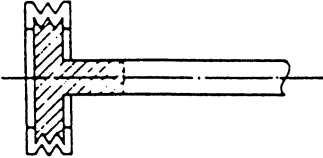
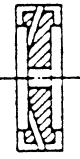
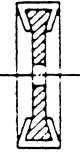
Illustration	Designation	Number coding
	E : <i>ditto</i> , broad F : <i>dito</i> , large R : та же, широкая D : <i>dito</i> , breit $50 \% \times d < l \leq 100 \% \times d$	086
	E : wheel, recessed, unmounted, perforated, helicoidal groove F : roue évidée, non montée, perforée, à sillon périphérique hélicoïdal R : колесовидная без хвостовика, с отверстиями, со спиральными бороздками D : Rad, perforiert, Rillen spiralförmig	088
	E : wheel, with peripheral grooves F : roue, à sillons périphériques R : колесовидная с проточками по боковой поверхности D : Rad, Rillen gerade, Rand schneidend	091
	E : <i>ditto</i> , perforated F : <i>dito</i> , perforée R : та же, перфорированная D : <i>dito</i> , perforiert	092
	E : wheel, recessed, unmounted, with canals for cooling F : roue évidée, non montée, avec canaux de refroidissement R : колесовидная с прорезками для охлаждения, без хвостовика D : Rad, nicht montiert, Rand schneidend, mit Kühlmittelbohrungen	093
	E : wheel, unmounted, with conical recess, rim cutting only F : roue, non montée, à évidement tronconique, coupant uniquement en bout et sur la partie adjacente R : колесовидная, полая, обратноконусная, без хвостовика D : Rad, nicht montiert, Rand schneidend, Rand konisch	094

Table 2 — Shapes and design

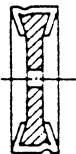
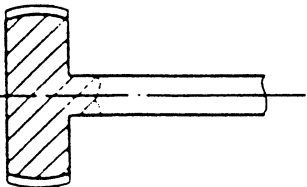
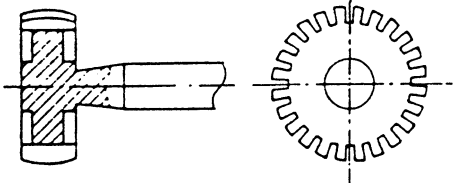
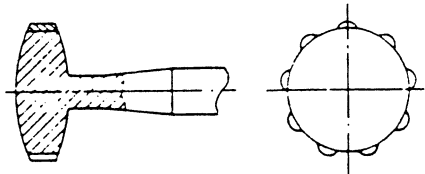
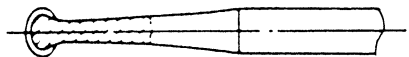
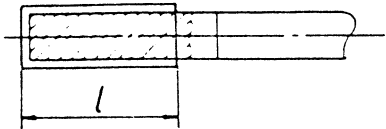
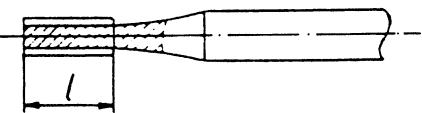
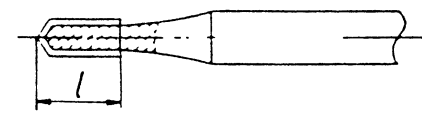
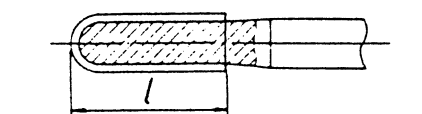
Illustration	Designation	Number coding
	E : wheel, unmounted, with conical recess, rim cutting only with helicoidal groove F : roue, non montée, à évidement tronconique, coupant uniquement en bout et sur la partie adjacente, avec sillon périphérique hélicoïdal R : колесовидная, полая, обратноконусная, со спиральными борозками, без хвостовика D : Rad, Rand schneidend, Rand konisch reit Rille spiralförmig	095
	E : wheel, spherical, symmetrically truncated, side cutting only F : roue sphérique, symétriquement tronquée, à coupe uniquement latérale R : сферическая, усеченная по торцам с нарезкой по сфере D : Rad konvex, nur Umfang schneidend	098
	E : wheel, spherical, symmetrically truncated and recessed, peripheral cutting only with tooth form to aid removal of debris F : roue sphérique, symétriquement tronquée, évidée, à coupe périphérique avec rainures pour éviction des copeaux R : сферическая, усеченная, пиловидная D : Rad konvex, nur Umfang schneidend mit Spanraum	099
	E : wheel, riveting F : roue pour riveter R : колесовидная, выпуклая для клепки D : Nietrad	100
	E : ellipsoidal F : ellipsoïde R : эллипсоидная D : oval	103
	E : cylindrical F : cylindrique R : с рабочей цилиндрической шейкой D : Zylinder	107

Table 2 — Shapes and design

Illustration	Designation	Number coding
	$l \leq 3,5 \text{ mm}$	108
	$3,5 \text{ mm} < l \leq 5,5 \text{ mm}$	109
	$5,5 \text{ mm} < l \leq 7,5 \text{ mm}$	110
	$7,5 \text{ mm} < l \leq 9,5 \text{ mm}$	111
	$9,5 \text{ mm} < l \leq 11,5 \text{ mm}$	112
	$11,5 \text{ mm} < l \leq 13,5 \text{ mm}$	113
	$13,5 \text{ mm} < l$	114
	E : cylindrical, side cutting only F : cylindrique, à coupe uniquement latérale R : с рабочей цилиндрической шейкой и боковой нарезкой D : Zylinder, nur Seite schneidend	116
	$l \leq 3,5 \text{ mm}$	117
	$3,5 \text{ mm} < l \leq 5,5 \text{ mm}$	118
	$5,5 \text{ mm} < l \leq 7,5 \text{ mm}$	119
	$7,5 \text{ mm} < l \leq 9,5 \text{ mm}$	120
	$9,5 \text{ mm} < l \leq 11,5 \text{ mm}$	121
	$11,5 \text{ mm} < l \leq 13,5 \text{ mm}$	122
	$13,5 \text{ mm} < l \leq 15,5 \text{ mm}$	123
	E : conical/cylindrical F : conico/cylindrique R : с рабочей цилиндрической шейкой и конусом на торце D : Zylinder, spitz	126
	$l \leq 3,5 \text{ mm}$	127
	$3,5 \text{ mm} < l \leq 5,5 \text{ mm}$	128
	$5,5 \text{ mm} < l \leq 7,5 \text{ mm}$	129
	$7,5 \text{ mm} < l \leq 9,5 \text{ mm}$	130
	$9,5 \text{ mm} < l \leq 11,5 \text{ mm}$	131
	$11,5 \text{ mm} < l \leq 13,5 \text{ mm}$	132
	$13,5 \text{ mm} < l \leq 15,5 \text{ mm}$	133
	E : hemispherical/cylindrical F : hémisphérique/cylindrique R : с рабочей цилиндрической шейкой и полусферой на торце D : zylindrisch, rund	137