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**Dentistry — Number coding system for  
rotary instruments —**

**Part 2:  
Shapes**

*Art dentaire — Système de codification numérique pour instruments  
rotatifs —*  
*Partie 2: Formes de réalisation*

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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 6360-2 was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 4, *Dental instruments*.

This second edition cancels and replaces the first edition (ISO 6360-2:1986), which has been technically revised. It also incorporates the Amendment ISO 6360-2:1986/Amd 1:1991

ISO 6360 consists of the following parts, under the general title *Dentistry — Number coding system for rotary instruments*:

- *Part 1: General characteristics*
- *Part 2: Shapes*
- *Part 3: Specific characteristics of burs and cutters*
- *Part 4: Specific characteristics of diamond instruments*
- *Part 6: Specific characteristics of abrasive instruments*
- *Part 7: Specific characteristics of mandrels and special instruments*

The following part is under preparation:

- *Part 5: Specific characteristics of root-canal instruments*

## Introduction

This part of ISO 6360 is one of a series of International Standards relating to dental rotary instruments. A wide variety of dental rotary instruments, including root-canal instruments, is manufactured throughout the world for use by the dental profession.

ISO 6360 provides a general number coding system for all types of dental rotary instruments, including accessories used in connection with these rotary instruments.

The benefits of this system for dentistry in its entirety will only be derived if the system is widely adopted; manufacturers of dental instruments, as well as the dental trade, are therefore requested to refer to ISO 6360 in their catalogues.

This part of ISO 6360 was prepared 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 number coding system suitable for all dental rotary instruments by use of a 15-digit code number identifying general and specific characteristics of instruments or groups of instruments.

The first group of three digits identifies the materials used for the working part of instruments.

The second group of three digits identifies the shanks and handles used for instruments and the overall lengths of instruments.

The third group of three digits identifies the shapes of instruments.

The fourth group of three digits identifies the specific characteristics for groups of instruments.

The fifth group of three digits identifies the nominal diameter of the working part of the instruments.

The code numbers are generic code numbers. They do not provide exact product information. This information is given in the respective product standards for dental rotary instruments.

For the application of the system and for the correct allocation of numbers or their identification, it is intended that the user consult ISO 6360-1 and this part of ISO 6360 for general information, and in addition one of the subsequent parts (ISO 6360-3 to ISO 6360-7) for further information on specific characteristics of instruments or groups of instruments.

For the allocation of new numbers complying with ISO 6360, an application supported by a description and a drawing should be sent to the secretariat of ISO/TC 106/SC 4, *Dental instruments*, which keeps updated records of all numbers currently allocated. An international group of experts will then decide on an appropriate identification number for the instrument in question, including its specific characteristics. The Secretary will inform the applicant, in due course, of the result and assist him in using the number correctly. The Secretariat of ISO/TC 106/SC 4 can be contacted at:

DIN NADENT  
Turnplatz 2  
75172 Pforzheim  
Germany

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# Dentistry — Number coding system for rotary instruments —

## Part 2: Shapes

### 1 Scope

This part of ISO 6360 specifies the code numbers for the shapes of all dental rotary instruments and for several accessories used in connection with these instruments. This three-digit number for shape description forms the third group of three digits in the 15-digit overall number, the principles of which are explained in ISO 6360-1.

NOTE In addition to terms for rotary instruments and accessories used in two of the three official ISO languages (English, French and Russian), this part of ISO 6360 gives the equivalent terms in the German language: these are published under the responsibility of the member body for Germany (DIN). However, only the terms given in the official languages can be considered as ISO terms.

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### 2 Normative references (standards.iteh.ai)

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 6360-1, *Dentistry — Number coding system for rotary instruments — Part 1: General characteristics*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6360-1 and the following apply.

#### 3.1

##### wheel

cylindrical rotary instrument used in dentistry in which the length of the working part is 5 % to 100 % of the diameter

#### 3.2

##### disc

cylindrical rotary instrument used in dentistry in which the length of the working part is less than 5 % of the diameter

#### 3.3

##### torpedo

shape of rotary instrument used in dentistry having a short radius near the tip of the working end

NOTE 1 See code numbers 284 and 294 for illustrations.

NOTE 2 The envelope of the rotating working end is similar to that produced by the revolution of a pointed (Gothic) arch around its axis of symmetry.

3.4

**conical with ogival end**

shape of rotary instrument used in dentistry having a long radius near the tip of the working end

NOTE See code number 213 for an illustration.

**4 Code numbers for shapes**

**4.1 General**

The general characteristics of the number coding system for rotary instruments are described in ISO 6360-1. The first and second groups of three digits of the 15-digit overall number are specified in ISO 6360-1.

The third group of three digits identifies the shape of the instrument.

The shapes are designated by a three-digit code number, which appears in the locations seven to nine of the 15-digit overall number.

**4.2 Generic form**

The code numbers are predominantly based on the geometric form of the rotary instruments. They are considered as generic, basic code numbers. Neither the illustrations nor the terms or lengths used are considered as correct product information. The geometric form is the easiest way to distinguish between different instruments. This differentiation is also used by the practitioner in his daily work. This principle however cannot be used throughout the complete number coding system. In several cases, the application of the instruments or the name of the inventor is used for clarification purposes. For simplified identification, it is considered advantageous to combine instrument names according to their application, e.g. root-canal instruments, implant burs, bone cutters for surgery.

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The general designation of the geometric form applies to that region of the rotary instrument from the shank (or handle) to the working part. The shank (or handle) is illustrated on the right side of a figure and the working part on the left side of a figure.

Additional descriptive terms used are

a) for application on the shank side (right side of the figure):

english (en): proximal

french (fr): proximale

german (de): hinten

b) for application on the working-part side (left side of the figure):

en: end or en: distal

fr: bout/frontale fr: distale

de: Stirn de: vorne

For shape/design variations of one type (basic type) of instrument, similar three-digit code numbers are used, but different digits are used to distinguish each individual pattern. For example a type of cylindrical instrument may have a number from 107 to 123. The difference in digits indicates variations in the shape of the working part, the angle of the tip, the length of the head, and/or other characteristics.



### 4.3 Wheels

For wheels all shapes are classified.

### 4.4 Discs

For discs all shapes are classified.

### 4.5 Diamond instruments

For diamond instruments, the basic code numbers shall be used. The exact length of the working part is given in the locations 10 to 12 (see ISO 6360-4).

**EXAMPLE** For a diamond instrument with a length of the working part of 4,0 mm, the basic code number is 137. The previously used code number 139 (which shall not be used) is given in order to ease the transition from the first edition of ISO 6360-2 (ISO 6360-2:1986) to this edition.

## 5 Shapes and design

### 5.1 General shapes and design

Code numbers which shall be used for general shapes and design are given in Table 1. The numbers, shown in Table 1, range from 001 to 316.

Table 1 – General shapes and design

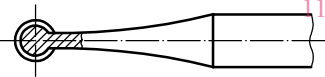

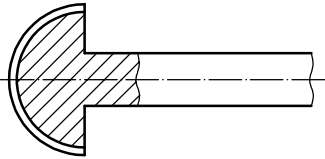
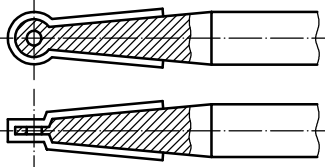
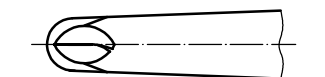
Shape and design	Designation	Code number
	en: spherical (round) fr: sphérique (ronde) de: kugelförmig (rund)	001
	en: spherical (round) with collar, standard fr: sphérique (ronde) avec extension, normale de: kugelförmig (rund) mit Ansatz, normal	002
	en: hemispherical fr: hémisphérique de: halbrund vorne	003
	en: spherical, flattened with collar and pierced fr: sphérique, aplatie avec extension et percée de: rund, abgeflacht mit Ansatz und Querbohrung	005
	en: hemispherical, enlarged neck without undercut fr: hémisphérique, col augmenté sans sous-tranchant de: halbrund, verstärkter Hals ohne Unterschnitt	006

Table 1 (continued)

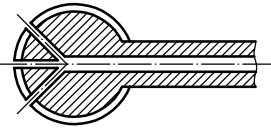

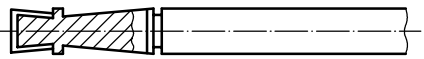
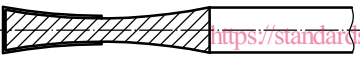
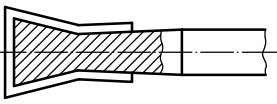
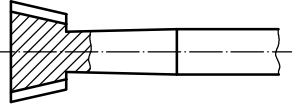
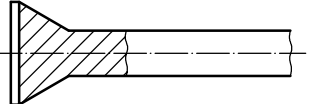
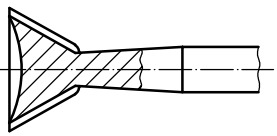
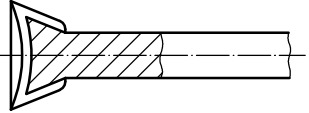
Shape and design	Designation	Code number
	en: spherical with internal cooling fr: sphérique avec conduits de refroidissement de: rund mit Innenkühlung	007
	en: inverted conical fr: conique inversée de: umgekehrter Kegel	010
see 010	$\alpha \leq 15^\circ$	011
see 010	$15^\circ < \alpha \leq 30^\circ$	012
see 010	$30^\circ < \alpha \leq 60^\circ$	013
see 010	$60^\circ < \alpha$	014
	en: inverted conical with shoulder, short fr: conique inversée avec épaulement, courte de: umgekehrter Kegel mit Anschlag, kurz	015
see 015	en: inverted conical with shoulder, normal fr: conique inversée avec épaulement, normale de: umgekehrter Kegel mit Anschlag, normal	016
	en: inverted conical with concave collar fr: conique inversée avec extension concave de: umgekehrter Kegel mit konkavem Ansatz	018
	en: inverted conical with collar fr: conique inversée avec extension de: umgekehrter Kegel mit Ansatz	019
	en: inverted conical, side-cutting only fr: conique inversée, coupe uniquement latérale de: umgekehrter Kegel, nur Seite schneidend	020
	en: inverted conical, end-cutting only fr: conique inversée, à coupe uniquement en bout de: umgekehrter Kegel, nur Stirn schneidend	021
	en: inverted conical, side-cutting only, concave end fr: conique inversée, coupe uniquement latérale, bout concave de: umgekehrter Kegel, nur Seite schneidend, konkave Stirn	022
	en: inverted conical, concave end fr: conique inversée, bout concave de: umgekehrter Kegel, konkave Stirn	023

Table 1 (continued)

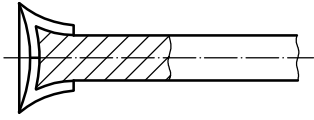
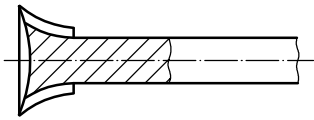
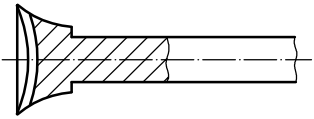
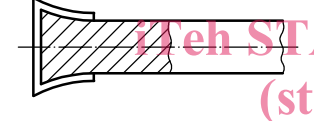
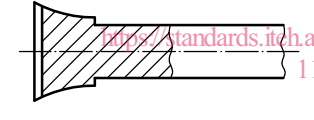
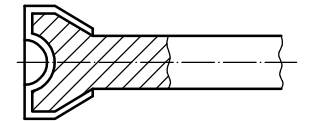
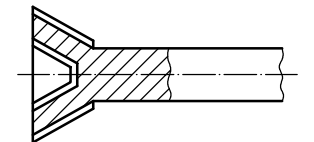
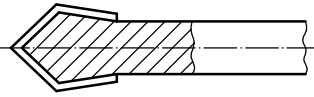
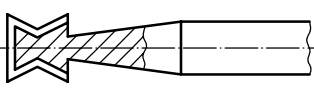
Shape and design	Designation	Code number
	en: inverted conical, concave, concave end fr: conique inversée, concave, bout concave de: umgekehrter Kegel, konkav, konkave Stirn	024
	en: inverted conical, concave, concave end, side-cutting only fr: conique inversée, concave, bout concave, coupe uniquement latérale de: umgekehrter Kegel, konkav, konkave Stirn, nur Seite schneidend	025
	en: inverted conical, concave, concave end, end-cutting only fr: conique inversée, concave, bout concave, coupe uniquement en bout de: umgekehrter Kegel, konkav, konkave Stirn, nur Stirn schneidend	026
	en: inverted conical, concave, side- and end-cutting fr: conique inversée, concave, coupe latérale et en bout de: umgekehrter Kegel, konkav, Stirn und Seite schneidend	027
	en: inverted conical, concave, end-cutting only fr: conique inversée, concave, coupe uniquement en bout de: umgekehrter Kegel, konkav, nur Stirn schneidend	028
	en: inverted conical, cylindrical, recessed hemispherical end fr: conique inversée, cylindrique, évidement hémisphérique frontal de: umgekehrter Kegel, zylindrisch, Stirn mit halbrunder Aussparung	029
	en: inverted conical, recessed conical end fr: conique inversée, évidement conique frontal de: umgekehrter Kegel, Stirn mit konischer Aussparung	030
	en: inverted conical, conical pointed fr: conique inversée, conique pointue de: umgekehrter Kegel, konisch spitz	031
	en: diabolo fr: diabolo de: Diabolo	032

Table 1 (continued)

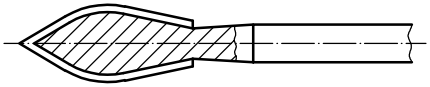
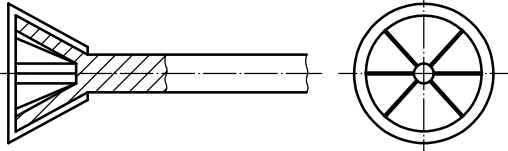
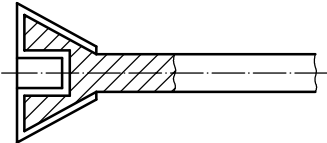
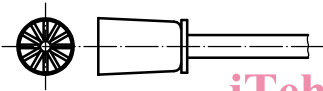
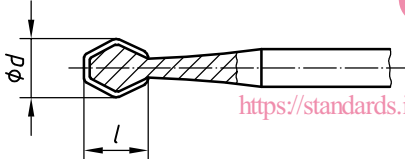
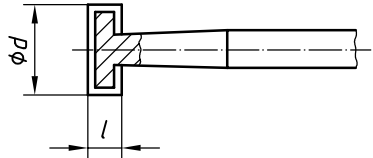
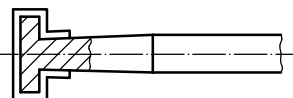
Shape and design	Designation	Code number
	en: inverted conical, rounded, conical pointed fr: conique inversée, arrondie, conique pointue de: umgekehrter Kegel, abgerundet, konisch spitz	033
	en: inverted conical, hollow, recessed cylindrical end, internally ribbed fr: conique inversée, creuse, évidement cylindrique frontal, intérieur lamelles de: umgekehrter Hohlkegel, Stirn mit zylindrischer Aussparung, innenliegende Lamellen	034
	en: inverted conical, recessed cylindrical end fr: conique inversée, évidement cylindrique frontal de: umgekehrter Kegel, Stirn mit zylindrischer Aussparung	035
	en: inverted conical, hollow, internally ribbed or fluted fr: conique inversée, creuse, intérieur lamelles ou ondes de: umgekehrter Hohlkegel, innenliegende Lamellen oder Wellen	036
	en: double conical, symmetrical, short fr: double conique, symétrique, courte de: Doppelkegel, symmetrisch, kurz	037
see 037	$d < l \leq 1,5 d$	038
see 037	$1,5 d < l$	039
	en: wheel fr: roue de: Rad	040
see 040	$5 \% d < l < 25 \% d$	041
see 040	$25 \% d < l < 50 \% d$	042
see 040	$50 \% d < l < 100 \% d$	043
	en: wheel with collar fr: roue avec extension de: Rad mit Ansatz	044

Table 1 (continued)

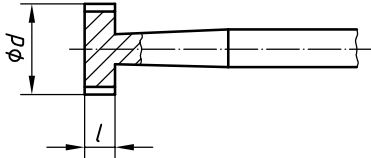
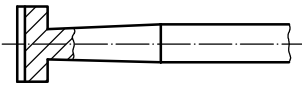
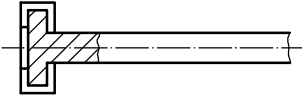
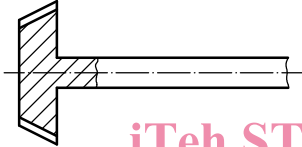
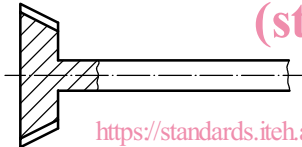
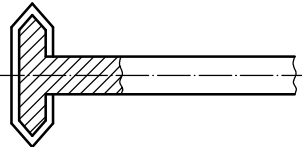
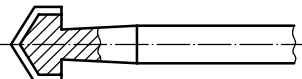
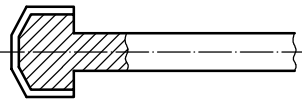
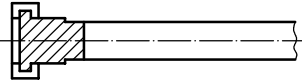
Shape and design	Designation	Code number
	en: wheel, peripheral-cutting only fr: roue, coupe uniquement périphérique de: Rad, nur Umfang schneidend $5 \% d < l \leq 25 \% d$	045
see 045	$25 \% d < l \leq 50 \% d$	046
	en: wheel, end-cutting only fr: roue, coupe uniquement en bout de: Rad, nur Stirn schneidend	047
	en: wheel, peripheral- and rim-cutting fr: roue, coupe périphérique et sur la partie adjacente de: Rad, Umfang und Rand schneidend	048
	en: wheel, conical, peripheral-cutting only fr: roue, conique, coupe uniquement périphérique de: Rad, konisch, nur Umfang schneidend	049
	en: wheel, inverted conical, peripheral-cutting only fr: roue, conique inversée, coupe uniquement périphérique de: Rad, umgekehrter Kegel, nur Umfang schneidend	050
	en: wheel, inverted conical, conical, symmetrical fr: roue, conique inversée, conique, symétrique de: Rad, umgekehrter Kegel, konisch, symmetrisch	051
	en: wheel, conical, sharp end fr: roue, conique, bout pointu de: Rad, konisch, Stirn spitz	052
	en: wheel, conical, end with chamfer fr: roue, conique, bout avec chanfrein de: Rad, konisch, Stirn mit Fase	053
	en: wheel, straight with shoulder, peripheral- and rim-cutting fr: roue, droite avec épaulement, coupant à la périphérie et sur la partie adjacente de: Rillenschleifer, gerade mit Tiefenanschlag, Umfang und Rand schneidend	054

Table 1 (continued)

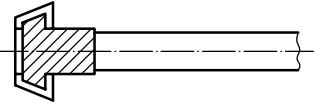
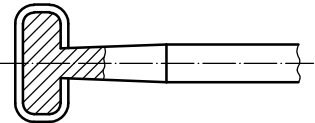
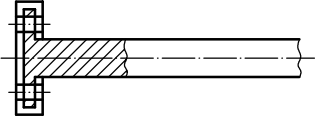
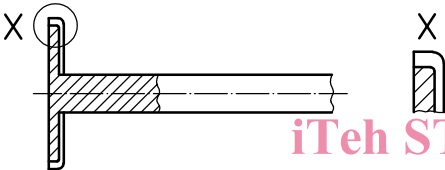
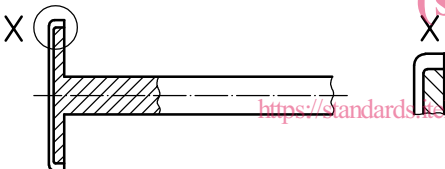
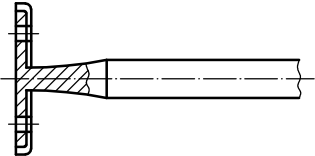
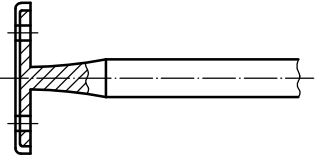
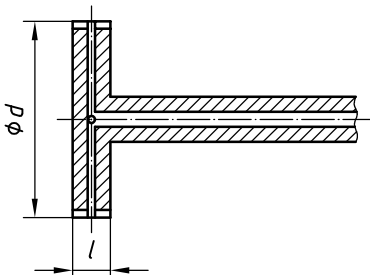
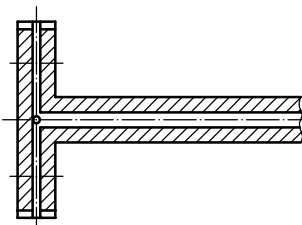
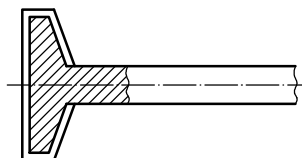
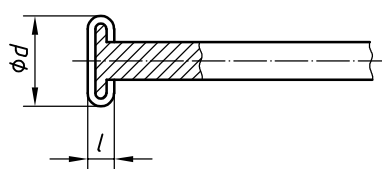
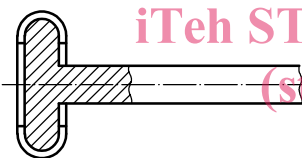
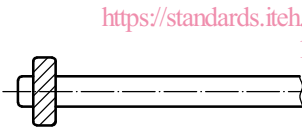
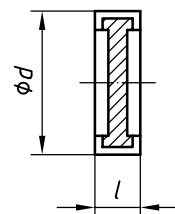
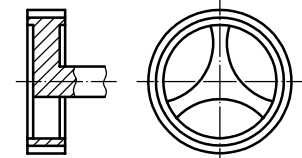
Shape and design	Designation	Code number
	<p>en: wheel, conical with shoulder, peripheral- and rim-cutting                      fr: roue, conique, avec épaulement, coupant à la périphérie et sur la partie adjacente                      de: Rillenschleifer, konisch mit Tiefenanschlag, Umfang und Rand schneidend</p>	055
	<p>en: wheel, rounded edge                      fr: roue, bords arrondis                      de: Rad, Kante rund</p>	056
	<p>en: wheel, perforated                      fr: roue, perforée                      de: Rad, perforiert</p>	057
	<p>en: wheel, proximal- and peripheral-cutting                      fr: roue, coupe périphérique et proximale                      de: Rad, Umfang und hinten schneidend</p>	058
	<p>en: wheel, peripheral- and distal-cutting                      fr: roue, coupe périphérique et frontale                      de: Rad, Umfang und vorne schneidend</p>	059
	<p>en: wheel, perforated, peripheral- and proximal-cutting                      fr: roue, perforée, coupe périphérique et proximale                      de: Rad, perforiert, Umfang und hinten schneidend</p>	060
	<p>en: wheel, perforated, peripheral- and distal-cutting                      fr: roue, perforée, coupe périphérique et frontale                      de: Rad, perforiert, Umfang und vorne schneidend</p>	061
	<p>en: wheel, with internal cooling, peripheral-cutting only                      fr: roue, avec conduits de refroidissement, coupe uniquement périphérique                      de: Rad, mit Innenkühlung, nur Umfang schneidend  <math>5 \% d &lt; l \leq 25 \% d</math></p>	062

Table 1 (continued)

Shape and design	Designation	Code number
	<p>en: wheel, perforated, with internal cooling, peripheral-cutting only</p> <p>fr: roue, perforée, avec conduits de refroidissement, coupe uniquement périphérique</p> <p>de: Rad, perforiert, mit Innenkühlung, nur Umfang schneidend</p>	063
	<p>en: wheel, conical proximal side</p> <p>fr: roue, bord proximal conique</p> <p>de: Rad, hintere Seite konisch</p>	064
	<p>en: wheel, half-circle rim</p> <p>fr: roue, périphérie demi-cercle</p> <p>de: Rad, Rand halbrund</p> <p><math>5 \% d &lt; l \leq 25 \% d</math></p>	067
	<p>en: wheel, half-circle rim, rim-cutting only</p> <p>fr: roue à périphérie demi-cercle, coupe uniquement latérale</p> <p>de: Rad, Rand halbrund, nur Rand schneidend</p>	072
	<p>en: wheel, rounded edge, side-cutting, with shoulder</p> <p>fr: roue, à bords arrondis, coupe latérale, avec épaulement</p> <p>de: Rad, Kante rund, Seite schneidend, mit Tiefenanschlag</p>	073
	<p>en: wheel, recessed, narrow, unmounted</p> <p>fr: roue, évidée, étroite, non montée</p> <p>de: Rad, abgesetzt, schmal, unmontiert</p> <p><math>5 \% d &lt; l \leq 25 \% d</math></p>	075
see 075	$25 \% d < l \leq 50 \% d$	076
see 075	$50 \% d < l \leq 100 \% d$	077
	<p>en: wheel with window, peripheral-cutting only</p> <p>fr: roue évidée, coupe uniquement périphérique</p> <p>de: Rad mit Fenster, nur Rand schneidend</p>	083