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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 1127-2023

Replacing GB/T 1127-2007

Woodruff keyseat cutters

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1. Structure and Drafting Rules of Standardization Documents"

Drafting.

This document replaces GB/T 1127-2007 "Semi-circular keyway milling cutter". Compared with GB/T 1127-2007, except for structural adjustment and editing

In addition to the modifications, the main technical changes are as follows.

- a) In the model, the end process boss structure is deleted (see Figure 1, Figure 1~Figure 4 of the.2007 version);
- b) Increase the neck diameter d2 size (see Figure 1, Table 1);
- c) The total length in Table 1 is changed from 55mm to 56mm, 60mm to 63mm, and 65mm to 71mm (see table 1, Table 1 of the.2007 edition);
- d) The radial circular runout of the circumferential edge to the handle axis is changed from 0.05mm to 0.03mm (see Table 2, Table 2 of the.2007 edition);
- e) Added high-performance high-speed steel and powder metallurgy high-speed steel among the materials, and added requirements for welding handle materials (see 6.2.1,.2007 version 4.2.1).

This document is modified to adopt ISO 12197.2016 "Semi-circular keyway milling cutter dimensions".

Compared with ISO 12197.2016, this document has made the following structural adjustments.

---Added Chapter 3 Terms and Definitions;

---Added Chapter 5 mark;

---Added Chapter 6 Technical Requirements;

---Added Chapter 7 logo and packaging.

The technical differences and reasons between this document and ISO 12197.2016 are as follows.

---Replaced ISO 3338-1 and ISO 3338-2 with normative reference documents GB/T 6131.1 and GB/T 6131.2

(See 4.2), replaced ISO 3912 (see Table 1) with normative reference document GB/T 1098, added GB/T 6131.3,

GB/T 6131.4, to adapt to my country's technical conditions;

---The handle type adds 2° beveled flat handle and threaded handle to meet domestic needs;

---The structure of the cutting part is divided into types A, B, and C, among which type A is added to meet domestic needs;

---The basic size of the semicircular key is changed from width x height to width x diameter, in line with domestic needs;

---The key width is 6mm and the handle diameter of 8mm is changed from 10mm to 12mm to meet domestic needs;

---The basic size of the milling cutter diameter is increased by 0.5mm, and the limit deviation is changed from 0.5 to 0.4 to h11. The upper deviation is added to the basic size to satisfy

Domestic needs;

---Added markings (see Chapter 5) to meet domestic needs;

---Added technical requirements (see Chapter 6) to meet domestic needs;

---Added logo and packaging (see Chapter 7) to meet domestic needs.

Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents.

1 Scope

This document specifies the basic requirements for semi-circular keyway milling cutters such as size, material, hardness, appearance, surface roughness, marking and packaging.
press book

The milling cutter produced by the document is suitable for semicircular keyways produced according to GB/T 1098.

This document applies to the manufacture of semicircular keyway milling cutters.

The relationship between this document and the priority symbols of ISO 13399 (all parts) is shown in Appendix A.

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations

For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to

this document.

GB/T 1098 Cross-sectional dimensions of semicircular keyway

GB/T 6131.1 Milling cutter straight shank Part 1.Types and dimensions of ordinary straight shank (GB/T 6131.1-2006, ISO 3338-1.

1996,IDT)

GB/T 6131.2 Milling cutter straight shanks Part 2.Types and dimensions of straight shanks (GB/T 6131.2-2006, ISO 3338-2.

2000,MOD)

GB/T 6131.3 Milling cutter straight shank Part 3.Types and dimensions of 2° inclined straight shank

GB/T 6131.4 Milling cutter straight shank Part 4.Types and dimensions of threaded shank (GB/T 6131.4-2006, ISO 3338-3.

1996,IDT)

3 Terms and definitions

There are no terms or definitions to be defined in this document.

4 Types and sizes

4.1 The type of semi-circular keyway milling cutter is as shown in Figure 1, and the dimensions are as shown in Table 1.

4.2 The shank of the semicircular keyway milling cutter shall be as specified below, and the

schematic diagram is shown in Figure 1.

- Ordinary straight handle according to GB/T 6131.1;
- Sharpen straight handle according to GB/T 6131.2;
- 2° beveled straight shank according to GB/T 6131.3;
- Threaded handle according to GB/T 6131.4.

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