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

GB 6120-1985

Replacing GB/T 6120-2012

**Metal slitting saw
(English Translation)**

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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 6120-2012 "Saw Blade Milling Cutters". Compared with GB/T 6120-2012, the only changes are structural adjustments and editorial modifications.

In addition, the main technological changes are as follows.

- a) The scope has been changed (see Chapter 1, Chapter 1 of the 2012 edition);
- b) The chapter on "Symbols" has been deleted (see Chapter 3 in the 2012 edition);
- c) An overview of "Types, Sizes, and Markings" has been added (see 4.1);
- d) The type requirements have been changed (see 4.2, 4.1 in the 2012 edition);
- e) The appearance and surface roughness have been changed (see 5.3, 7.2 in the 2012 edition);
- f) A new chapter on "Detection Methods" has been added (see Chapter 6).

This document is modified to adopt ISO 2296:2018 "Metric series of saw blades and milling cutters for metal".

This document has undergone the following structural adjustments compared to ISO 2296:2018.

---Chapter 4 corresponds to Chapters 4 and 5 of ISO 2296:2018, where 4.2 corresponds to Figure 1 of section 4.2 in ISO 2296:2018.

And Chapter 5; 4.3.1 corresponds to Table 1 of 4.2 in ISO 2296:2018, and 4.3.2

corresponds to 4.3 in ISO 2296:2018.

The technical differences between this document and ISO 2296:2018, and the reasons therefor, are as follows.

---ISO 2924 has been replaced with the normatively referenced GB/T 6130, and ISO 240 has been replaced with GB/T 6132 (see 4.2) to suit my needs.

The country's technological conditions;

---The design drawing of the saw blade end mill has been modified (see 4.2) to conform to the actual situation in China;

---The requirement that keyways be formed in the inner bore has been added (see 4.2) to adapt to my country's technical conditions;

---Tables 1 and 2 have had their tooth pitches and footnotes removed. Optional dimensions and their descriptions have been added. A provision allowing the omission of a support platform has also been added.

(See Tables 1 and 2) to adapt to my country's technological conditions;

---The coarse-tooth saw blade end mill in ISO 2296:2018 has been modified to the medium-tooth saw blade end mill in the Chinese standard, and new coarse-tooth end mills have been added.

The dimensions of the saw blade end mills (see 4.3.2 and 4.3.3) are adapted to my country's technical conditions;

---Added markings (see 4.4) to suit my country's technical conditions;

---Technical requirements have been added (see Chapter 5) to adapt to my country's technological conditions;

---Detection methods have been added, and the normative reference JB/T 10231.13 (see Chapter 6) has been added to adapt to my country's technical requirements.

condition;

---Added signage and packaging (see Chapter 7) to suit our country's technical conditions.

The following editorial changes have been made to this document.

---To align with existing standards, the standard name has been changed to "Saw Blade Milling Cutters";

---The scope description has been changed (see Chapter 1);

---The method for determining the number of teeth on a saw blade milling cutter has been changed (see Appendix A).

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China Machinery Industry Federation.

This document is under the jurisdiction of the National Technical Committee on Standardization of Cutting Tools (SAC/TC91).

1 Scope

This document specifies the types, dimensions and markings, technical requirements, markings and packaging of saw blade end mills, and describes the testing methods for saw blade end mills.

This document applies to the manufacture of saw blade end mills.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

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

This document.

GB/T 6130 Patchwork Circular Saw (GB/T 6130-2001, eqv ISO 2924:1973) GB/T 6132 Interchangeable dimensions of end mills and end mill holders (GB/T 6132-2021, ISO 240:2016, IDT) JB/T 10231.13 Inspection Methods for Cutting Tools - Part 13: Saw Blade End Mills

3 Terms and Definitions

This document does not contain any terms or definitions that need to be defined.

4.1 Overview

Saw blade end mills are classified into fine-tooth, medium-tooth, and coarse-tooth saw blade end mills. The teeth of medium-tooth and fine-tooth saw blade end mills...

The tooth ratio is 0.5. The number of teeth is related to the diameter and thickness of the saw blade. The method for determining the number of teeth of the saw blade milling cutter is given in Appendix A.

The relationship between the symbols in this document and those in ISO 13399 (all parts) is given in Appendix B.

4.2 Type

The type of saw blade milling cutter is shown in Figure 1.

The clearance angle of the saw blade milling cutter can extend to the diameter d_3 of the hole or hub. The clearance angle should be determined by the manufacturer.

Saw blade end mills typically do not have keyways. However, when $d_2 \geq 110$ mm and $e \geq 3$ mm, a keyway should be machined into the inner hole. The dimensions of the keyway should conform to GB/T 6132.

According to the regulations.

According to the agreement between the manufacturer and the user, saw blade end mills with diameters d_2 of 200mm, 250mm, and 315mm can be equipped with pin hole drivers.

The number of holes, aperture, and pitch circle diameter shall conform to the requirements of GB/T 6130.