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

GB/T 1114-2016

Replacing GB/T 1114.1-1998; GB/T 1114.2-1998

**Shell end mills
(English Translation)**

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard replaces GB/T 1114.1-1998 "Part Shell end mills 1. Dimensions" and GB/T 1114.2-1998 "Shell end mills - Part 2. technical conditions." this standard and GB/T 1114.1-1998 and GB/T 1114.2-1998 compared to the main changes are as follows.

Two parts --- the original standards into a single standard;

--- The GB/T 1114.2-1998 roughness Rz of 5.2 to modify this standard roughness Ra (see Chapter 5);

--- High speed steel material increases its hardness requirements (see Chapter 6);

--- Appendix A radially internal circumferential edge of the hole axis runout defines the measurement position.

This standard uses redrafted law revision using ISO 2586. 1985 "straight hole and the end key drive Shell end mills Metric series." Technical differences exist compared to 1985, the terms of these differences has been involved in a single vertical line through (-) its outer margin positions were marked. This standard and ISO 2586.

--- Modify the normative references;

--- Cancel the original "International Standard Scope Article 1 of the outer diameter of the series is taken from ISO 523 diameter cutter recommend" series, former ISO 523 standard has been set aside;

--- Added "3.2 tag example";

--- Increased "tolerance position 4, 5 appearance and surface roughness, and material hardness 6, 7 logo and packaging" projects such as technical requirements.

This standard also made the following editorial changes.

--- Modify the standard name.

--- Added "Appendix A (normative) Shell end mills runout detection methods." the standard proposed by China Machinery Industry Federation.

This standard tool by the National Standardization Technical Committee (SAC/TC91) centralized.

1 Scope

The standard provides a set of end mill type and size, the basic requirements of position tolerances, appearance and surface roughness, and material hardness, marking and packaging. This cutter with a straight hole and end keys so fixed to the arbor.

This standard applies to a whole series of high-speed steel metric bite type cutter.

This standard does not apply to inserts, welding gear and mounted indexable inserts Shell end mills.

2 Normative references

The following documents for the application of this document is essential. For cited documents with dates, only the dated edition applies to this document. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 20329 end key drive arbor for milling cutters and tool holders swap Size (GB/T 20329-2006, ISO 2780. 1986, IDT)

3 Type and size

3.1

Shell end mills types and dimensions specified in Figure 1 and Table 1. End face of the keyway sizes and deviation by GB/T 20329 requirements.

Shell end mills can be made into the right or left helical teeth, helical teeth.

0.5mm on the back does not make hard and fast rules.