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

GB/T 37891.5-2019

**Cutter arbors with parallel key and tenon drive -- Part 5:
Dimensions and designation of tool holders with polygonal
taper interface with flange contact surface**

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Foreword

GB/T 37891 "Milling cutter with flat key and end key drive" is divided into 6 parts.

- Part 1. General size;
- Part 2. Dimensions and markings of hollow cone-shank shanks with flanged contact surfaces;
- Part 3. Dimensions and markings with 7.24 automatic tool changer taper shank;
- Part 4. Size and marking of the 7.24 manual tool changer taper shank;
- Part 5. Dimensions and markings of multi-sided taper shank with flanged contact surfaces;
- Part 6. Dimensions and markings of modular taper shank with steel ball tensioning system.

This part is the fifth part of GB/T 37891.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This part uses the redrafting method to modify the ISO 10649-5.2012 milling cutter with flat key and end key drive. Part 5. Belt method

Dimensions and markings of the multi-edge taper shank of the blue contact surface.

The technical differences between this part and ISO 10649-5.2012 and their reasons are as follows.

---About the normative reference documents, this part has made technical adjustments to adapt to China's technical conditions, adjustments

The situation is reflected in Chapter 2, "Regulatory Citations", and the specific adjustments are as follows.

- * Replace ISO 2768-2 with GB/T 1184 equivalent to the international standard;
 - * Replace ISO 2768-1 with GB/T 1804 equivalent to the international standard;
 - * Replace ISO 2780 with GB/T 20329 equivalent to the international standard;
 - * Replace ISO 26623-1 with GB/T 32557.1 equivalent to the international standard;
 - * Replace ISO 10649-1 with GB/T 37891.1 modified to adopt international standards;
 - * Replace ISO 10643 with GB/T 37895 modified to international standards.
- Revised the drawing method of the bolt in Figure 1, the original international standard drawing method is wrong.

This section has made the following editorial changes.

--- Removed references to international standards.

This part was proposed by the China Machinery Industry Federation.

This part is under the jurisdiction of the National Tool Standardization Technical Committee (SAC/TC91).

This section drafted by. Hrad (Changzhou) Precision Tools Co., Ltd., Sichuan Tianhu Tools Co., Ltd., Chengdu Tool Research Institute Limited.

1 Scope

This part of GB/T 37891 specifies the dimensions of a polygonal pyramid shank milling cutter with flat key and end key drive and flanged contact faces.

mark.

This section applies to polygonal pyramidal shank milling cutters with flat key and end key drive with flanged contact faces.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 1184 Shape and position tolerances without tolerance values (GB/T 1184-1996, eqv/ISO 2768-2. 1989)

GB/T 1804 General tolerances No tolerances for linear and angular dimensions (GB/T

1804-2000, eqvISO 2768-1.

1989)

GB/T 20329 end-key transmission milling cutter and cutter bar interchangeable size (GB/T 20329-2006, ISO 2780.

1986, IDT)

GB/T 32557.1 Polygonal pyramid interface with flanged contact surfaces - Part 1. shank dimensions and markings (GB/T 32557.1-

2016, ISO 26623-1.2008, IDT)

GB/T 37891.1 Milling shanks with flat and end key drives - Part 1. General dimensions (GB/T 37891.1-2019,

ISO 10649-1.2013, MOD)

GB/T 37895 size with flat key and end key drive milling cutter attachment (GB/T 37895-2019, ISO 10643.2009,

MOD)

3.1 General provisions

All dimensions and tolerances are in millimeters, unfilled tolerances are in accordance with the "m" class of GB/T 1804, and unformed geometric tolerances are in accordance with GB/T 1184.

The "k" level of the regulation.

The interchangeable size of the cutter upper cutter is in accordance with GB/T 20329.

The interface size of the cutter on the milling cutter with flat key and end key drive is as specified in GB/T 37891.1.

The diagram is only a schematic diagram, does not represent the design diagram, just gives the dimensions that need to be met.

See Appendix A for the relationship between the dimensions of this section and the symbols of the ISO 13399 series of standards.

3.2 Toolbar size

The type and dimensions of the shank are shown in Figure 1 and Table 1.