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

GB/T 5900.2-2022

**Machine tools - Connecting dimensions of spindle noses and
work holding chucks - Part 2: Camlock type**

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foreword

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

This document is the second part of GB/T 5900 "Dimensions for the connection between the end of the machine tool spindle and the chuck". GB/T 5900 has been released to the next part.

--- Part 1. Conical connection;

--- Part 2. Cam locking type;

--- Part 3. Bayonet type.

This document replaces GB/T 5900.2-1997 "Interchangeability between the end of the machine tool spindle and the faceplate - Part 2. Cam locking type", and

Compared with GB/T 5900.2-1997, in addition to structural adjustment and editorial changes, the main technical changes are as follows.

- a) the chapter "Terms and Definitions" was added (see Chapter 3);
- b) Added the chapter "Interchangeable Dimensions" (see Chapter 4);
- c) Deleted the entire row of "screws (according to GB 67)" (see Table 1, Table 1 of the 1997 edition);
- d) Deleted the entire row of "screws (according to GB 70)" (see Table 4, Table 2 of the 1997 edition);

- e) Added "hexagon socket head cap screws for tie rods (see 5.5.1)";
- f) Added "Cylinder head screw for cam (see 5.5.4)";
- g) Deleted "brake spring for cam" (see 6.4 of the 1997 edition);
- h) Corresponding revisions have been made to the figures and tables, which are consistent with international standards;
- i) Removed appendix.

This document is equivalent to ISO 702-2:2007 "Dimensions for the connection between the end of the machine tool spindle and the chuck - Part 2: Cam lock type".

Articles covered by technical errata have been marked with vertical double lines (||) in their outer margins.

Two chapters "Normative References" and "Terms and Definitions" have been added to this document.

The following minimal editorial changes have been made to this document.

- a) Include the content of ISO 702-2:2007 technical corrigenda;
- b) In Table 1, replace the tolerance "0.01 0" with "0.016 0";
- c) Figure 2 was revised;
- d) In Table 8, replace " $l \times 0.2$ " with " $l \pm 0.2$ ".

Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents.

Introduction

There are four main types of connection methods between the end of the machine tool spindle and the chuck in my country: conical connection, cam locking type, bayonet type and cylindrical connection.

The dimensions of these four connection methods vary greatly. In order to make my country's machine tool spindles and chucks and other related products can be conveniently used together, it is necessary to

standardize it. GB/T 5900 "The connection dimension between the end of the machine tool spindle and the chuck" better solves the problem of different machine tool spindles and chucks

The problem of connection size provides a unified scale for the manufacturers and users of machine tools and chucks, and it is planned to be composed of four parts.

--- Part 1. Conical connection. The purpose is to establish the correlation between the end of the machine tool spindle and the chuck in the form of a conical connection type connection. size.

--- Part 2. Cam locking type. The purpose is to establish the relationship between the end of the machine tool spindle and the chuck in the form of a cam lock type connection.

off size.

--- Part 3. Bayonet type. The purpose is to establish the relative dimensions between the end of the machine tool spindle and the chuck in the form of a bayonet-type connection.

--- Part 4. Cylindrical connection. The purpose is to establish the correlation between the end of the machine tool spindle and the chuck in the form of a cylindrical connection type connection.

size.

Combined with the specific situation of the cam-locked connection form at the end of the machine tool spindle and the relevant dimensions of the chuck, with the advancement of technology and production

On the basis of the content of GB/T 5900.2-1997, there are new requirements and suggestions. At the same time, ISO 702-2 has issued.2007

Version. In view of this, this document is equivalent to adopting ISO 702-2.2007, and the relevant technical content of GB/T 5900.2 is revised and improved to continuously adapt to

New changes in relevant standards at home and abroad as well as new demands for technological progress and development of production practices.

Dimensions of the connection between the end of the machine tool spindle and the chuck

Part 2. Cam Lock Type

1 Scope

This document specifies the interchangeable dimensions of the cam-lock type machine tool spindle end and the corresponding connecting plate or chuck.

Note. Conical connection, bayonet type and cylindrical connection are specified in ISO 702-1, ISO 702-3, ISO 702-4 respectively.

2 Normative references

There are no normative references in this document.

3 Terms and Definitions

There are no terms and definitions that need to be defined in this document.

4 Interchangeability

All linear dimensions and tolerances in this document are in millimeters (mm).

Although not interchangeable respectively because the internal mounting parts and assembly screws may conform to the metric or inch series, the metric spindle end face and inch

The dimensions of the connecting surface are completely interchangeable, and vice versa.