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

GB/T 19903.121-2008

**Industrial automation systems and integration -- Physical
device control -- Data model for computerized numerical
controllers -- Part 121: Tools for turning machines**

工业自动化系统与集成 物理设备控制 计算机数值控制器用的数据模型 第121部分
： 车床用刀具

(English Translation)

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Appendix A (normative appendix) EXPRESS Expansion Table

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English Vocabulary of

Foreword

GB/T 19903 "Industrial automation systems and integration - Physical device control data model for computerized numerical controllers of" equivalent mining with ISO 14649. GB/T 19903 plans to develop the following sections.

--- Part 1. Overview and basic principles (ISO 14649-1);

--- Part 10. General process data (ISO 14649-10);

--- Part 11. Process data for milling (ISO 14649-11);

--- Part 12. Process data for turning (ISO 14649-12);

--- Part 111. Milling Tool (ISO 14649-111);

--- Part 121. lathe tool (ISO 14649-121).

Further added enactment of Part gap between standard reserved.

This section GB/T 19903 Part 121.

This part identical with ISO 14649-121:2005 "Industrial automation systems and integration - Physical device control computer numerically controlled Used data model - Part 121. Lathe Tool "(in English).

For ease of use, this section made the following editorial changes.

--- Remove the ISO 14649-121:2005 Foreword and Introduction;

--- Remove the ISO 14649-121:2005 Chapter 2 normative references in the guide language, with GB/T 1.1-2000 in

6.2.3 The introductory phrase in place;

--- No part of ISO 14649 to number GB/T 19903;

--- No part of ISO 10303 to number GB/T 16656;

--- In order to facilitate the inspection, the original English Index to the English Vocabulary.

In ISO 14649-121:2005 and other international standards cited for not tantamount to the adoption of our standards in this section are Directly referenced.

As a graphical user interface. With the growing popularity of open architecture controllers, this approach will be more easily achieved. GB/T 19903 Excluding traditional programming statements.

GB/T 19903.121-2008/ISO 14649-121:2005 Industrial automation systems and integration - Physical device control Data model for computerized numerical controllers of Part 121. lathe tool

1 Scope

This section provides a description of the data elements lathes and turning centers with the tool. This is often part and GB/T 19903.12 (lathes and vehicles Cut data center technology used) together use. These data elements can be used to select a particular machining operation, but they do not describe a for complete information specific tool. Thus, leaving some choice of properties to the controller for greater freedom of tool selection.

Note 1: Assuming NC system can be specified to give a complete description of the tool from the database. turing_machine_tool_schema as defined in this section the basic tool mode, which

includes CNC system Select the desired tool from the turret lathe.

Note 2: In ISO 6983, the tool is defined by its identifier (eg T8), no more information about the tool types and geometric aspects. these messages it is part of the tool set table, provided by the NC program to the machine. The tool set table gives the tool orientation (such as an eighth slot magazine) and tool type (such as 4mm drill) relationship.

This section includes information in the tool set table contains.

- Tool identifier;
- Tool type;
- Tool geometry;
- Status and application-related tool life expectancy.

turing_machine_tool_schema tool does not include the database information. Tool database and machine and tool itself but related Independent of the NC program. The following tool data outside the scope of this section.

- Normative tool life;
- Positioning tool in the tool change institutions;
- Shank tool system and related projects;
- Other processes with tools, such as. milling, grinding, EDM tool.

Note 3: It is important to inform all length measurement type is not a type of length measurement tolerances used in this section, as they are used to describe the machining of workpieces required to tool dimensions, while the actual size is not available on the machine tool. Actual tool tolerances must be adopted based on the actual tool dimensions and characteristics of the knife it has managed to choose.

Note 4: This section should be used as a tool to describe the whole tool. It does not describe the individual components of the tool (cutter body, blades or clamping unit).

Note 5: Other technology used in other parts of the tool will be described in GB/T 19903 in.

2 Normative references

The following documents contain provisions which, through GB/T 19903 reference in this text, constitute provisions of this part. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 19903.10-2006 Industrial automation systems and integration - Physical device

control data used in computer numerical controller module Type Part 10. General process data (ISO 14649-10:2004, IDT) GB/T 19903.12-2008 Industrial automation systems and integration - Physical device control data used in computer numerical controller module GB/T 19903.121-2008/ISO 14649-121:2005