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NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA

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GB/T 5105-2004

Replacing GB/T 5105-1985

**The basic types and dimensions of hobs for 45°
pressure angle involute splines**

45°压力角渐开线花键滚刀

基本型式和尺寸

Replaced by GB/T 5104-2008

Issued on: February 10, 2004

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**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the PRC;**

Standardization Administration of the PRC.

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Foreword

This Standard replaces GB/T 5105-1985 "The basic types and dimensions of hobs for 45° pressure angle involute splines".

Compared with GB/T 5105-1985, the main changes of this Standard are as follows:

- ADD a marking example;
- Modify the series code of modulus.

Appendix A and Appendix B of this Standard are informative appendices.

This Standard was proposed by China Machinery Industry Federation.

This Standard shall be under the jurisdiction of National Technical Committee 91 on Cutting Tools of Standardization Administration of China.

Responsible drafting organization of this Standard: Guiyang Tool Factory.

Main drafters of this Standard: Liu Minzhi, Lin Gang, Wang Shuguang.

The previous editions of the standard replaced by this Standard were released as follows:

- GB/T 5105-1985.

The basic types and dimensions of hobs for 45° pressure angle involute splines

1 Scope

This Standard specifies the basic types and dimensions of hobs for the overall involute splines with a modulus of 0.25 mm~2.50 mm and a pressure angle of 45°.

This Standard is applicable to hobs for straight cylindrical involute splines with machined basic rack profiles according to GB/T 3478.1 and dimensions according to GB/T 3478.4.

The hob is of class C accuracy.

2 Normative references

The following documents contain provisions which, through reference in this Standard, constitute provisions of this Standard. For the dated references, their subsequent amendments (excluding corrections) or revisions do not apply to this Standard. However, the parties who enter into agreement based on this Standard are encouraged to investigate whether the latest editions of these documents are applicable. For undated reference documents, the latest editions apply to this Standard.

GB/T 3478.1 Straight cylindrical involute splines - Modules, basic rack profiles and tolerances (GB/T 3478.1-1995, eqv ISO 4156:1981)

GB/T 3478.4 Straight cylindrical involute splines - 45° pressure angle dimensions tables (GB/T 3478.4-1995, neq ISO 4156:1981)

GB/T 5103-2004 The general technical specifications for involute splines hobs

GB/T 6132 Interchangeability dimensions for milling cutters and arbors (GB/T 6132-1993, neq ISO 240:1981)

3 Types and dimensions

3.1 The basic types and dimensions of hobs for involute splines are as shown in Figure 1 and Table 1.

3.2 The hob is made as a single-head right-handed (can be made as a left-handed according to user requirements). The chip pocket is a straight flute parallel to the hob axis.

3.3 The dimensions and tolerances of the spline are in accordance with GB/T 6132.

3.4 The diameter d_1 of the pillow block is determined by the manufacturer.

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