

Translated English of Chinese Standard: GB/T5104-2008

www.ChineseStandard.net → Buy True-PDF → Auto-delivery.

Sales@ChineseStandard.net

GB

NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA

ICS 25.100.20
J 41

GB/T 5104-2008

Replacing GB/T 5104-2004, GB/T 5105-2004

**The basic types and dimensions of hobs for involute
splines**

渐开线花键滚刀 基本型式和尺寸

Issued on: August 28, 2008

Implemented on: March 01, 2009

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

Standardization Administration of the PRC.

Table of Contents

Foreword	3
1 Scope	4
2 Normative references	4
3 Types and dimensions	5
4 Marking examples	7
Appendix A (Informative) Calculation dimensions of hob	8
Appendix B (Informative) Axial rack profile dimensions of hob	10

Foreword

This Standard replaces GB/T 5104-2004 "The basic types and dimensions of hobs for 30 Degree pressure angle involute splines" and GB/T 5105-2004 "The basic types and dimensions of hobs for 45° pressure angle involute splines".

Compared with GB/T 5104-2004 and GB/T 5105-2004, this Standard has the following technical differences:

- Integrate GB/T 5104-2004 and GB/T 5105-2004.

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 (SAC/TC 91).

Drafting organization of this Standard: Chongqing Tool Factory Co., Ltd.

Main drafters of this Standard: Dai Xin, Jiang Ning.

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

- GB 5104-1985, GB/T 5104-2004;
- GB 5105-1985, GB/T 5105-2004.

The basic types and dimensions of hobs for involute splines

1 Scope

This Standard specifies the basic types and dimensions of hobs for the overall involute splines with a modulus of 0.5 mm~10 mm and a pressure angle of 30° and 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 or GB/T 3478.2.

A hob with a pressure angle of 30° is suitable for three accuracies of A, B, and C. A hob with a pressure angle of 45° is suitable for 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 3478.2 Straight cylindrical involute splines - 30° pressure angle dimensions tables (GB/T 3478.2-1995, neq 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 6132 Milling cutters interchangeability dimensions for cutter arbors (GB/T 6132-2006, ISO 240:1994, IDT)

3 Types and dimensions

3.1 The basic types of hob for involute spline with a pressure angle of 30° are divided into two: type I and type II. Type I is a flat-addendum hob, suitable for processing external splines of flat dedendum. Type II is a round-addendum hob, suitable for processing external splines of round dedendum.

3.2 The structure types and dimensions of hob for involute spline with a pressure angle of 30° are in accordance with Figure 1 and Table 1. The structure types and dimensions of hob for involute spline with a pressure angle of 45° are in accordance with Figure 1 and Table 2. See Appendix A for the calculation dimensions of the hob. See Appendix B for the axial dimensions of the hob.

3.3 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.

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

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

This is an excerpt of the PDF (Some pages are marked off intentionally)

Full-copy PDF can be purchased from 1 of 2 websites:

1. <https://www.ChineseStandard.us>

- SEARCH the standard ID, such as GB 4943.1-2022.
- Select your country (currency), for example: USA (USD); Germany (Euro).
- Full-copy of PDF (text-editable, true-PDF) can be downloaded in 9 seconds.
- Tax invoice can be downloaded in 9 seconds.
- Receiving emails in 9 seconds (with download links).

2. <https://www.ChineseStandard.net>

- SEARCH the standard ID, such as GB 4943.1-2022.
- Add to cart. Only accept USD (other currencies - <https://www.ChineseStandard.us>).
- Full-copy of PDF (text-editable, true-PDF) can be downloaded in 9 seconds.
- Receiving emails in 9 seconds (with PDFs attached, invoice and download links).

Translated by: Field Test Asia Pte. Ltd. (Incorporated & taxed in Singapore. Tax ID: 201302277C)

About Us (Goodwill, Policies, Fair Trading...): <https://www.chinesestandard.net/AboutUs.aspx>

Contact: Wayne Zheng, Sales@ChineseStandard.net

Linkin: <https://www.linkedin.com/in/waynezhengwenrui/>

----- The End -----