

ICS 21.220.10

CCS J 18



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

GB/T 46597-2025

**Belt drives - Grooved pulleys for joined classical V-belts -
Groove sections AJ, BJ, CJ, DJ and EJ (effective system)**

带传动 联组普通V带轮 AJ、BJ、CJ、DJ和EJ轮槽 (有效宽度制)

(English Translation)

Issued on: October 31, 2025

Implemented on: May 1, 2026

Issued by: State Administration for Market Regulation

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is modified to adopt ISO 5291:2011 "Belt drives, couplings, standard V-belt pulleys AJ, BJ, CJ and DJ grooves (effective width)".

system)".

The technical differences between this document and ISO 5291:2011, and the reasons therefor, are as follows.

---ISO 1081 has been replaced with the normatively referenced GB/T 6931.2 to adapt to my country's technical conditions and increase operability;

---ISO 9980:1990 has been replaced with the normatively referenced GB/T 11356.2-2023 to adapt to my country's technical conditions, and the following has been added.

Operability;

---ISO 254 has been replaced with the normatively referenced GB/T 11357 to adapt to my country's technical conditions and increase operability;

---Some dimensional terminology symbols have been changed (see Figures 1, 2, and Table 1; Figures 1, 2, and Table 1 of ISO 5291:2011), in accordance with existing national standards.

Quasi-coordination;

---Added EJ pulley groove type and related content, added new models, and expanded the scope of standard application;

---The tolerance standard value for the slot spacing has been changed (see Table 1, Table 1 of ISO 5291:2011) to improve dimensional accuracy;

---The cumulative limit deviation of the slot spacing has been changed (see Table 1, Table 1 of ISO 5291:2011) to improve dimensional accuracy;

---A schematic diagram for checking circular runout has been added (see Figure 3) to facilitate the application of this document.

The following editorial changes have been made to this document.

---The standard name has been changed to "Belt Drive Combination Ordinary V-belt Pulleys AJ, BJ, CJ, DJ and EJ Pulley Grooves (Effective Width System)".

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China Machinery Industry Federation.

This document is under the jurisdiction of the National Technical Committee on Standardization of Pulleys and Belts (SAC/TC428).

Introduction

V-belt drive is one of the important transmission methods of belt drive. Ordinary and narrow V-belt drives are the most basic forms of V-belt drive.

Narrow V-belt drives can be divided into two series. standard width and effective width. They are widely used in machine tools, mining machinery, petroleum machinery, and coal mining machinery.

It is used in various fields such as machinery, woodworking machinery, garden machinery, and agricultural machinery. Ordinary and narrow V-belt drives can be further divided into non-coupled and coupled types.

The international standard ISO 5291:1993 for pulleys in V-belt drives (coupling type) was first adopted by GB/T 17197-1997 "Belt Drives".

The standard GB/T 17197-1997 for "General V-belt Pulleys (Effective Width System)" was adopted in 2008 and was superseded by GB/T 13575.2-2008 for "General V-belt Pulleys".

The entire document "and Narrow V-belt Drives Part 2: Effective Width System" is replaced, and its technical content is given as an appendix, but from GB/T 13575.2...

In terms of overall structure, the adopted standard content is unrelated to the overall content of GB/T 13575.2, and the adopted standard has been removed from GB/T 13575.2-2022.

This document is formulated in accordance with the revised standards.

Belt drive coupling ordinary V-belt pulley AJ, BJ, CJ, DJ, and EJ wheel grooves (effective width system)

1 Scope

This document specifies the groove cross-section dimensions, groove inspection, and belt width of effective width-type combined ordinary V-belt pulleys (AJ, BJ, CJ, DJ, and EJ types).

Wheel material, surface roughness, and balance.

This document applies to pulleys for banded ordinary V-belts.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

GB/T 6931.2 Belt Drives Terminology Part 2: V-Belts and Multi-Wedge Belt Drives (GB/T 6931.2-2020, ISO 1081.

2013, MOD)

GB/T 11356.2-2023 Belt drives - General and narrow V-belt pulley groove shape test - Part 2: Effective width system (ISO 9980.

2012, MOD)

GB/T 11357 Material, surface roughness and balance of pulleys (GB/T 11357-2020, ISO 254:2011, MOD)

3 Terms and Definitions

The terms and definitions defined in GB/T 6931.2 apply to this document.

4.1 Groove Section

The dimensions of the wheel groove cross-section are shown in Figure 1, Figure 2 and Table 1.