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# NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA



# GB/T 6931.3-2020

## Belt drives - Vocabulary - Part 3: Synchronous belt drives

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## Foreword

GB/T 6931 "Glossary of Belt Drive" is divided into 3 parts.

--- Part 1. Basic terminology;

--- Part 2. V-belt and V-ribbed belt drive;

--- Part 3. Timing belt drive.

This part is Part 3 of GB/T 6931.

This part replaces GB/T 6931.3-2008 "Terminology of belt drive Part 3. Terminology of synchronous belt drive", and GB/T 6931.3-2008

In contrast, the main technical changes except for editorial changes are as follows.

--- Removed normative references (see Chapter 2 of the.2008 edition);

--- Added general terms (see 2.1);

--- Added the terms and definitions of "node pitch difference" (see 2.2.3);

--- Revised the diagram with height (see Figure 5, Figure 4 of the.2008 edition);

--- Added terms and definitions related to tooth shape (see 2.3);

--- Added terms and definitions related to the type of timing belt used (see 2.4);

--- Added terms and definitions related to the structure of the timing belt (see 2.5);

--- Modified the terms and definitions of "tooth surface" (see 2.6.5, 3.2.7, 3.3.6,.2008 version 3.2.5, 4.2.7, 4.3.2.4);

--- Added terms and definitions related to the main types of timing belts (see 2.7);

--- Modified the symbol of the top pitch of the pulley (see 3.1.6,.2008 version 4.1.6);

--- Modified the illustration of the pulley pitch (see Figure 29, Figure 22 of the.2008 edition);

--- Revised the illustration of the minimum wheel width (see Figure 30, Figure 23 of the.2008 edition);

--- Modified the illustration of measuring the tooth backlash of the pulley (see Figure 31, Figure 24 of the.2008 edition);

--- Added the term and definition of "tooth width" (see 3.2.13);

--- Added the terms and definitions of "Wheel Tool Root Width" (see 3.3.12).

This part uses the redrafting method to modify and adopt ISO 5288..2017 "Terminology of Synchronous Belt Transmission".

Compared with ISO 5288..2017, this part has more structural adjustments. Appendix A lists the differences between this part and ISO 5288..2017.

A comparison list of chapter numbers.

There are technical differences between this part and ISO 5288..2017. Appendix B gives a list of corresponding technical differences and their causes.

The following editorial changes have been made in this section.

--- Modified the standard name;

--- Added the informative appendix "Terms of Main Types of Synchronous Belt" (see Appendix C).

This part is proposed by China Machinery Industry Federation.

This part is under the jurisdiction of the National Pulley and Belt Standardization Technical Committee (SAC/TC428).

This section was drafted by. China Machine Productivity Promotion Center, Wuxi Belt Belt Co., Ltd., Ningbo Fulong Synchronous Belt Co., Ltd., Nanjing

Bokechi Tape Co., Ltd., Ningbo Fengmao Far East Rubber Co., Ltd., Zhejiang Samsung Tape Co., Ltd., Sichuan Deen Precision Technology Co., Ltd. have

Limited company, Jiangsu Zhongsheng Transmission Technology Co., Ltd., Hubei Automotive Industry Institute.

## 1 Scope

This part of GB/T 6931 defines the terms, definitions and symbols of timing belts, pulleys and cogging tools.

This section applies to synchronous belt drive applications.

Note. See Appendix C for terminology of main types of timing belts.

## 2.1 General terms

2.1.1

Endless synchronous belt drive

Drive with endless timing belt.

2.1.2

Open synchronous belt drive

Drive with open timing belt.

## 2.2 General terms, definitions and symbols of timing belts

2.2.1

Toothpitch

Pb

Under the specified tension, the linear distance of the symmetric center line of two adjacent teeth on the longitudinal section of the belt.

Note. See Figure 1.

figure 1

2.2.2

Pitchline

When the belt is bent perpendicular to its bottom edge, any perimeter in the belt with the original length unchanged.

Note. See Figure 2.