

CCS J 18



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

GB/T 28774-2021

**Synchronous belt drives - Belts with T trapezoidal profile
system**

Issued on: May 21, 2021

Implemented on: December 1, 2021

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

Foreword

1 Scope

2 Normative references

3 Terms and definitions

4 Model and marking

4.1 Model

4.2 Marking

Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard replaces GB/T 28774-2012 "synchronous belt drive metric pitch trapezoidal tooth synchronous belt", and GB/T 28774-2012

Compared with the main technical changes as follows.

---Modified the labeling example with (see 4.2, 3.2 in the.2012 edition);

---The height of the double-sided toothed belt has been increased (see Figure 1 and Table 1);

---Added the limit deviation of the length of the connecting ring synchronous belt, super long ring synchronous belt, and open synchronous belt (see 5.2.2, 5.2.3 and 5.2.4);

---Modified the measurement pulley parameters (see Table 5, Table 4 of the.2012 edition);

---Revised the center distance symbol [see Figure 2 and equation (1),.2012 version of Figure 2 and equation (1)];

---The belt length measurement of the extra-long endless synchronous belt and the open synchronous belt has been added (see 6.2);

---Modified the measurement force data of the belt (see Table 6, Table 5 of the.2012 edition).

This standard uses the redrafting method to amend and adopt ISO 17396.2017

"Synchronous belt drive metric pitch T and AT-shaped tooth ring and

Opening belt and pulley".

Compared with ISO 17396.2017, this standard has many structural adjustments. Appendix

A lists this standard and ISO 17396.2017.

The chapter number comparison list.

Compared with ISO 17396.2017, this standard has technical differences.

The set vertical single line (|) is marked, and a list of the corresponding technical differences and their reasons is given in Appendix B.

This standard also made the following editorial changes.

---The name of the standard has been changed to harmonize with our country's existing standards.

This standard was proposed by the China Machinery Industry Federation.

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

Drafting organizations of this standard. Ningbo Karcher Tape Co., Ltd., China Machinery Productivity Promotion Center, Zhejiang Fengmao Technology Co., Ltd., Ningbo

Jaguar Transmission System Co., Ltd., Jinjiulong Industrial Co., Ltd., Sichuan Deen Precision Technology Co., Ltd.

1 Scope

This standard specifies the type, mark, size, and belt length measurement of T-shaped trapezoidal tooth synchronous belts (hereinafter referred to as belts).

This standard applies to general industrial synchronous belt drives, and is used in conjunction with the corresponding models specified in GB/T 28775-2021.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article

Pieces. For undated reference documents, the latest version (including all amendments) is applicable to this document.

GB/T 6931.3 Terminology for Belt Transmission Part 3.Synchronous Belt Transmission (GB/T 6931.3-2020, ISO 5288.2017,

MOD)

GB/T 28775 Synchronous belt drive T-shaped trapezoidal tooth synchronous belt wheel (GB/T 28775-2021, ISO 17396.2017, MOD)

3 Terms and definitions

The following terms and definitions defined in GB/T 6931.3 apply to this document.

3.1

Connect endless belts (not made from circular moulds)

Cut out a certain length of open synchronous belt, and use welding or gluing to make an endless synchronous belt.

3.2

Ultra-long endless belt very long endless belts

Loop timing belts that exceed the specified pitch length (see Table 2 for details).

4.1 Model

T-type trapezoidal tooth synchronous belts are divided into four types. T2.5, T5, T10, and T20 according to the tooth pitch; according to the tooth distribution, they are divided into single-sided teeth and double-sided teeth

Synchronous belt. A single tooth synchronous belt is a synchronous belt with teeth on only one side. The double-sided toothed synchronous belt is a synchronous belt with teeth on both sides, according to the relative position of the teeth

The setting is divided into symmetrical teeth and staggered teeth. The symmetrical tooth double-sided synchronous belt type code is DA, and the staggered tooth double-sided synchronous belt type code is DB.

4.2 Marking

The marking of the belt is composed of bandwidth, model and pitch line length.

Double-sided toothed synchronous belt, add the letters DA or DB in front of the bandwidth.

Open synchronous belt

Add the letter M after the pitch line length. Connect the endless synchronous belt and add the letter V after the pitch line length.

Example.

Single tooth synchronous belt. 50-T10-1400

Double-sided toothed synchronous belt. DA50-T10-1400 or DB50-T10-1400

Open synchronous belt. 25-T5-50000-M

Connecting to the endless synchronous belt. 50-T10-5000-V