



**International
Standard**

ISO 3410

**Agricultural machinery — Variable-
speed V-belts and groove sections of
pulleys (Datum system)**

*Machines agricoles — Courroies trapézoïdales pour variateurs de
vitesse et profils de gorge des poulies (système de référence)*

**Third edition
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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 41, *Pulleys and belts (including veebelts)*, Subcommittee SC 1, *Friction*.

This third edition cancels and replaces the second edition (ISO 3410:1989), which has been technically revised.

The main changes are as follows:

- addition of a permission in [4.1.2](#);
- revision of [Table 3](#).

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Agricultural machinery — Variable-speed V-belts and groove sections of pulleys (Datum system)

1 Scope

This document specifies the main dimensions of endless variable-speed V-belts intended for use on agricultural machinery (and, in particular, harvester-thresher machines), together with the groove section of the corresponding fixed- or variable-diameter pulleys.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3, *Preferred numbers — Series of preferred numbers*

ISO 1081, *Belt drives — V-belts and V-ribbed belts, and corresponding grooved pulleys — Vocabulary*

ISO 9608, *V-belts and V-ribbed belts — Uniformity of belts — Test method for determination of centre distance variation*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 1081 apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

4 Dimensions and tolerances

4.1 Belts

4.1.1 General

An endless variable-speed V-belt on agricultural machinery transmits a high degree of force per unit of section; when it approaches a groove pulley, its cross-section undergoes appreciable deformations. For this reason, the various dimensions which are defined hereunder shall be taken as being those of the belt placed on the device used for the measurement of its length, and subjected to the force F . The dimensions W_p , B , W and T are those relating to the parts of the belt when in contact with the measuring pulleys.

4.1.2 Cross-sections

Cross-sectional dimensions, as indicated in [Figure 1](#), are given in [Table 1](#). Cross-sections are characterized by a ratio of height T to pitch width W_p of approximately 0,5, and a pitch line at approximately one-third of the height below the top of the belt. The lower one-third of the trapezium can be notched.