

# INTERNATIONAL STANDARD

**ISO**  
**5289**

Second edition  
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## **Agricultural machinery — Endless hexagonal belts and groove sections of corresponding pulleys**

*Machines agricoles — Courroies hexagonales sans fin et profils de  
gorges des poulies correspondantes*



Reference number  
ISO 5289:1992(E)

## **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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75% of the member bodies casting a vote.

International Standard ISO 5289 was prepared by Technical Committee ISO/TC 41, *Pulleys and belts (including veebelts)*, Sub-Committee SC 1, *Veebelts and grooved pulleys*.

This second edition cancels and replaces the first edition (ISO 5289:1978), which has been technically revised.

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# Agricultural machinery — Endless hexagonal belts and groove sections of corresponding pulleys

## 1 Scope

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

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 3:1973, *Preferred numbers — Series of preferred numbers*.

ISO 1081:1980, *Drives using V-belts and grooved pulleys — Terminology*.

ISO 4183:1989, *Belt drives — Classical and narrow V-belts — Grooved pulleys (system based on datum width)*.

ISO 5291:1987, *Belt drives — Grooved pulleys for joined classical V-belts — Groove sections AJ, BJ, CJ and DJ (effective system)*.

## 3 Definitions

For the purposes of this International Standard, the definitions (terms and symbols) relating to drives using V-belts (i.e. belts and grooved pulleys) given in ISO 1081 apply.

## 4 Dimensions and tolerances

### 4.1 Belts

#### 4.1.1 General

An endless hexagonal 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 specified in this International Standard are to 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  $w$  and  $T$  are those relating to the parts of the belt when in contact with the measuring pulleys.

#### 4.1.2 Cross-sections (see figure 1)

The theoretical profile of these belts is a hexagon consisting of two equal isosceles trapezia joined at their wider base; the neutral axis, coinciding in practice with the transverse diagonal of this hexagon, is located therefore at half the height of the section.

The dimensions of these cross-sections are given in table 1.