



SLOVENSKI STANDARD

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Naprave za kontinuirni transport - Jermenski pogoni - Klinasti jermeni in mnogoterni klinasti jermeni ter pripadajoče jermenice - Slovar

Belt drives - V-belts and V-ribbed belts, and corresponding grooved pulleys - Vocabulary

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Transmissions par courroies - Courroies trapézoïdales et striées, et poulies à gorges - Vocabulaire

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21.220.10	Jermenski pogoni in njihovi deli	Belt drives and their components

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

**Transmissions par courroies —
Courroies trapézoïdales et striées, et
poulies à gorges — Vocabulaire**

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Foreword

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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 documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 41, *Pulleys and belts (including veebelts)*, SC 1, *Veebelts and grooved pulleys*.

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This third edition cancels and replaces the second edition (ISO 1081:1995), which has been technically revised.

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

0 Scope

This International Standard specifies the terms and definitions, in English and French, relating to aromatic natural raw materials.

This International Standard defines terms relating to V-belt drives, V-belts, hexagonal belts, joined V-belts and the corresponding V-grooved pulleys, V-ribbed belt drives, V-ribbed belts and V-ribbed pulleys, as well as the corresponding symbols.

The general definitions are valid irrespective of the system describing the pulleys.

The dimensions of pulley grooves can be defined either on the basis of the datum width or on the basis of the effective width. As a result, two systems for the definition and description of the dimensions of pulleys and belts have been developed. The two systems are independent of each other.

1 Terms and definitions relating to V-belts and grooved pulleys

1.1 General terms and definitions

1.1.1 Belts

1.1.1.1 V-belt

belt, the cross-section of which is shaped roughly like a regular trapezium

Note 1 to entry: On a cross-section of a straight-sided belt, the trapezium is outlined by the base, sides and top of the belt.

Note 2 to entry: The intersection of the extended profiles of the base, side and top is considered when edges are cut short or rounded.

Note 3 to entry: See [Figure 1](#).

1.1.1.1.1

hexagonal belt

special belt with hexagonal cross-section consisting of two equal isosceles trapezia joined at their wider base

1.1.1.1.2

joined V-belt

two or more equal trapezoidal V-belts placed side by side in a definite distance and joined by a covering band

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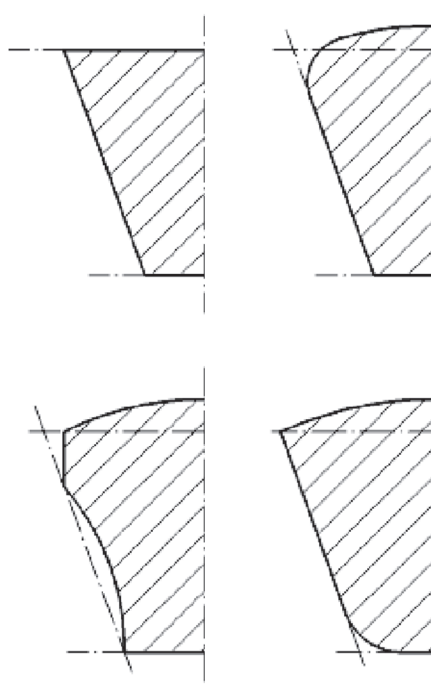


Figure 1 — V-belts

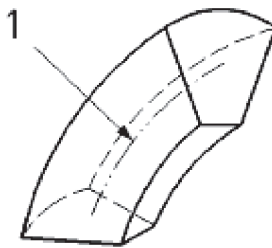
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1.1.1.2 pitch line

any circumferential line in the belt which keeps the same length when the belt is bent perpendicularly to its base

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Note 1 to entry: See [Figure 2](#).



Key

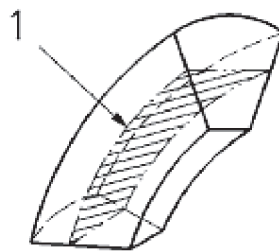
1 pitch line

Figure 2 — Pitch line

1.1.1.3 pitch zone

geometrical zone containing all of the pitch lines

Note 1 to entry: See [Figure 3](#).

**Key**

1 pitch zone

Figure 3 — Pitch zone**1.1.1.4****pitch width** w_p

width of the belt at its pitch zone (neutral zone)

Note 1 to entry: The width remains unchanged when the belt is bent perpendicularly to its base.

Note 2 to entry: See [Figure 4](#).**1.1.1.5****top width** w

larger width of the trapezium outlined on a cross-section

Note 1 to entry: See [Figure 4](#).

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1.1.1.6**height** T

height of the trapezium outlined on a cross-section

Note 1 to entry: See [Figure 4](#).**1.1.1.7****relative height**non-dimensional characteristic calculated as the ratio of height to pitch width (T/w_p)

Note 1 to entry: The approximate relative height of the four types of V-belt is as follows:

- narrow V-belt: 0,9;
- classical V-belt: 0,7;
- half wide V-belt: 0,5;
- wide V-belt: 0,3.

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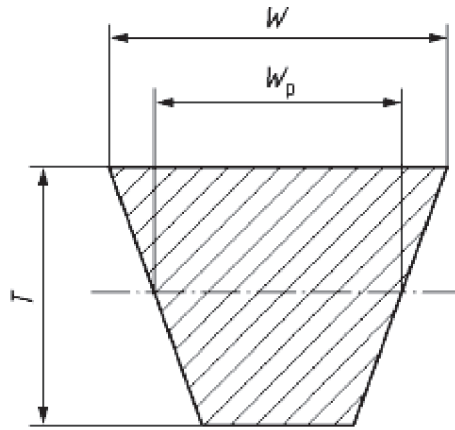


Figure 4 — Pitch width, top width, height

1.1.2 Pulleys

1.1.2.1

V-grooved pulley

pulley with one or more grooves obtained by rotation of a profile in the shape of a truncated or non-truncated symmetrical V around the pulley axis

Note 1 to entry: A round groove bottom is acceptable. In most cases, all the grooves of a pulley have identical profiles.

1.1.2.2

angle of pulley groove

α
angle included by the sides of the groove cross-section

Note 1 to entry: For any given profile, the pulley groove angle may have several different values depending upon the pulley diameter.

Note 2 to entry: See [Figure 5](#).

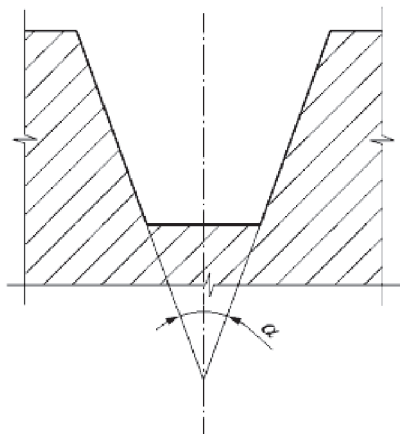


Figure 5 — Angle of pulley groove

1.1.2.3

pitch width of pulley groove

w_p
width of the pulley groove which has the same dimension as the pitch width of the belt used with this pulley

1.1.2.4**pitch diameter** d_p

diameter of the pulley at the pitch width of pulley groove

1.1.2.5**pitch circumference** C_p

circumference of a circle with a diameter equal to the pitch diameter

1.1.3 Drives**1.1.3.1****V-belt drive**

drive which consists of one or more V-belts mounted on grooved pulleys

Note 1 to entry: The profiles of the belts and of the pulley grooves are such that the belts come into contact only with the sides of the pulley grooves and not with the bottom of the grooves.

1.1.3.2**speed ratio** R

ratio of the angular velocities of the pulleys, as calculated from the ratio of the pitch diameters of the pulleys, making no allowance for slip and creep

1.2 Terms and definitions relating to the system based on data widths (standards.iteh.ai)

1.2.1 Pulleys**1.2.1.1****datum width** w_d

groove width characterizing the groove profile

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Note 1 to entry: It is a defined value not subject to tolerance and is usually located at the level of the pitch zone of the V-belt for which the pulley groove is preferably intended. It should coincide with the pitch width of that V-belt within reasonable tolerances.

Note 2 to entry: The datum width of a pulley groove was previously designated as *pitch width* (l_p). However, the datum width is equal to the pitch width only when the pitch zone on the V-belt is located at the level of the datum width of the pulley groove.

Note 3 to entry: If different *angles of pulley groove* (1.1.2.2) are required, the groove flanks shall be assumed to hinge round both ends of the datum width.

Note 4 to entry: See [Figure 6](#).