INTERNATIONAL STANDARD

ISO 9980

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Belt drives — Grooved pulleys for V-belts (system based on effective width) — Geometrical inspection of grooves

Transmissions par courroies — Poulies à gorges pour courroies trapézoïdales (système basé sur la largeur effective) — Contrôle géométrique des gorges

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 9980 was prepared by Technical Committee ISO/TC 41, *Pulleys and belts (including veebelts)*, Subcommittee SC 1, *Friction*.

This second edition cancels and replaces the first edition (ISO 9980:1990), of which it constitutes a minor revision.

Introduction

In drives using V-belts, the dimensions of the 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.

For the geometrical inspection of grooves defined on the basis of the effective width, necessary tests to ensure by mechanical means the conformity of a grooved pulley with standard specifications were specified, but modern quick or serial checking procedures for grooved pulley production control were not.

Belt drives — Grooved pulleys for V-belts (system based on effective width) — Geometrical inspection of grooves

1 Scope

This International Standard specifies the methods of checking the regularity of the grooves and pulleys for V-belts specified in the system based on effective width. The grooved pulleys can be designed for use with classical or narrow V-belts. The V-belts can be either single or joined units.

It is intended to specify the inspection parameters and tolerances of grooved pulleys in future International Standards.

2 Principle

Complete inspection of a grooved pulley carried out in four successive checking operations, in the following order:

— inspection of groove profile (see Clause 3);

— inspection of groove spacing (see Clause 4);

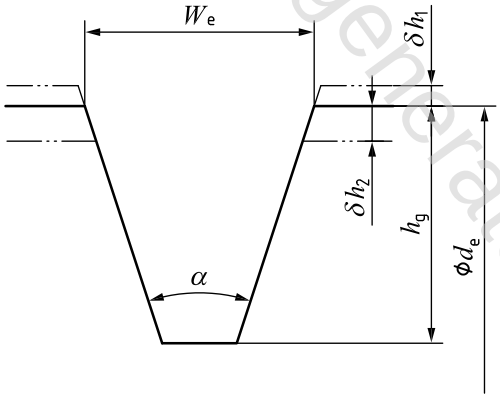
— inspection of effective diameter (see Clause 5);

— inspection of run-out (see Clause 6).

3 Groove profile

3.1 Specifications

The groove profile shall be specified in the corresponding International Standard by the dimensions shown in Figure 1 and given in Table 1.



NOTE The flanks of the grooves are straight up to at least $d_e - 2\delta h_2$.

Figure 1 — Groove profile