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Synchronous belt drives — Imperial pitch trapezoidal profile system — Belts and pulleys

Transmissions synchrones par courroies — Système de profil trapézoïdal pour pas impérial — Courroies et poulies

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Foreword

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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)*, Subcommittee SC 4, *Synchronous belt drives*.

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Synchronous belt drives — Imperial pitch trapezoidal profile system — Belts and pulleys

1 Scope

This International Standard specifies the principal characteristics of synchronous endless belts and pulleys for use in synchronous endless belt drives[1)] for mechanical power transmission and where positive indexing or synchronization is required.

The principal characteristics includes the following:

a) belt nominal tooth dimensions;

b) belt length and width dimensions and tolerances;

c) belt length-measurement specifications;

d) pulley grooves dimensions and tolerances;

e) pulley dimensions and tolerances;

f) pulley quality specification.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 254, *Belt drives —Pulleys — Quality, finish and balance*

ISO 1101, *Geometrical product specification (GPS) — Geometrical tolerancing — Tolerances of form, orientation, location and run-out*

3 Profiles

Seven profiles for synchronous drives are standardized: MXL, XXL, XL, L, H, XH, XXH.

The profiles and the corresponding belt pitches are given in Table 1.

1) These drives have been known under various names in the past, for example: timing belt drives, positive belt drives, gear belt drives.

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