INTERNATIONAL ISO

Second edition
2010-03-01

Geometrical product specifications (GPS) — Dimensioning and tolerancing — Non-rigid parts

Spécification géométrique des produits (GPS) — Cotation et tolérancement — Pièces non rigides

Reference number
ISO 10579:2010(E)

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Published in Switzerland

Foreword

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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 10579 was prepared by Technical Committee ISO/TC 213, *Dimensional and geometrical product specifications and verification*.

This second edition cancels and replaces the first edition (ISO 10579:1993), which has been technically revised.

Introduction

This International Standard is a geometrical product specification (GPS) standard and is to be regarded as a global GPS standard (see ISO/TR 14638)[4]. It influences chain links 1, 2 and 3 of the chain of standards on form of line independent of datum, form of line dependent on datum, form of surface independent of datum, form of surface dependent on datum, orientation, location, circular run-out and total run-out in the general GPS matrix.

For more detailed information on the relation of this standard to other standards and the GPS matrix model, see Annex B.

Certain parts, when removed from their manufacturing environment, may deform significantly from their defined limits owing to their weight, flexibility or the release of internal stresses resulting from the manufacturing processes.

These parts are defined as “non-rigid parts” and the deformation is acceptable provided that the parts may be brought within the indicated tolerance by applying reasonable force to facilitate inspection and assembly.

Depending on the design function and the part's interface with its mating components, instead of, or in addition to, assessing the part conventionally (in its free state condition), it may be necessary to assess the part when subject to restraint that is no greater than those accepted in the assembled condition.

Parts in this category include both those of inherently rigid material (such as thin metal parts) and those of inherently flexible material (such as rubber, plastics, etc.).