

Poster

Importance of Geometrical Product Specification for modern industry

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The ISO standards for the Geometrical Product Specification (GPS) define an internationally uniform description language, that allows expressing unambiguously and completely all requirements for the micro and macro geometry of a product with the corresponding requirements for the inspection process in technical drawings, taking into account current possibilities of measurement and testing technology. This avoids ambiguities and inconsistencies during the planning of manufacturing and inspection processes and in addition costs through time-consuming arrangements between the client and suppliers. GPS is a subject that is relevant to a growing number of sectors of industry throughout the EU. Standardization works in the range of GPS are now very intense. There are approx. 60 standards under development giving in total ca. 2500 pages.

Engineering drawings without geometrical tolerances and datums or datum systems are in most cases incomplete and ambiguous and therefore not unambiguously interpretable. The incomplete, ambiguous tolerancing of components in engineering drawings causes not only increased production and inspection costs but also makes impossible reasoned complaints of shortcomings and ultimately lead to an incalculable liability risk in the case of legal disputes.

The examples of ambiguous specification of geometrical requirements and possible solutions to avoid ambiguity will be demonstrated.