

Geometrical Dimensioning & Tolerancing for design, manufacturing and quality

with certificate

TOPICS

- Understanding geometric tolerances
- Definition of functional, production and proof-compliant datum systems
- Avoid ambiguities and uncertainties
- Creation of internationally understandable product specifications based on ISO standards

Live-Online means

- 4 Units in sequence
- 2,5 hrs. per unit
- 1 unit per day
- Desk sharing
- Lessons
- Interaction to trainer

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General information

Standard-compliant, complete and unambiguous drawings have been the goal of every developer and designer since the introduction of Geometric Product Specifications (GPS). As the relevant standards have changed considerably in recent years, it is often no longer possible to fall back on analogies from the past.

The seminar is aimed at all employees from development and design, production and quality departments who want and need to apply the new standards and understand the relationships between drawing creation, parts production and quality assurance.

Using practical case studies presented by experienced engineers, the most recent findings will be transferred to the participants so that they can apply them in their daily work. This seminar will give you more confidence in applying the latest geometric product specification standards.

No previous knowledges are required to benefit from this seminar.



Dipl.-Ing. Ina Mildner

Dipl.-Ing. Ina Mildner studied mechanical engineering at the University of Kassel, where she subsequently worked as a research assistant at the Institute of Materials Science. Ms. Mildner has been working at casim Ingenieurleistungen since 2000, where she manages extensive tolerance management projects for customers from a wide range of industries.

Her technical expertise is complemented by her work as a coach in the field of Geometric Product Specification (GPS).



Questions about the seminar, technical issues or individual content for your seminar?

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Geometrical Dimensioning & Tolerancing

for design, manufacturing and quality

- Monday – Tuesday
- Daily: 09.00 – 11.30 a.m.



Content (Extract)

▲ Generals of geometrical tolerancing

- Technical drawings– designers language
- Tolerancing in the past and today
- What is GPS
- Basics of tolerancing

▲ Geometric tolerances

- Minimum conditions
- Datum systems - DIN EN ISO 5459
- Datum systems – Best fit
- Tolerance zones

▲ DIN EN ISO 1101

- Tolerances of profile, direction, location and run-out and their symbols
- Modifiers for parameters

▲ Principles of tolerancing

- Enveloping principle accord. DIN 7167
- Principle of independence accord. DIN EN ISO 8015

▲ DIN EN ISO 14405-1 – Linear sizes

▲ DIN EN ISO 14405-3 – Angular sizes

▲ DIN EN ISO 8015 (Status September 2011)

▲ DIN EN ISO 2692

- Maximum-Material-Conditions
- Minimum-Material-Conditions
- Reciprocity condition

▲ DIN EN ISO 10 579

Tolerancing of non rigid parts

▲ DIN EN ISO 22081 | DIN 2769

- General specifications for geometrical features and linear sizes
- Interactions with DIN ISO 2768

▲ General tolerances (various standards)

▲ DIN EN ISO 21920 – Tolerancing of surfaces texture

- Changes related to ISO 1302

▲ DIN EN ISO 13715 – Spezifikation of edges

▲ Differences between ASME Y 14.5 M and ISO

▲ Approach for dimensioning and tolerancing Guideline

▲ GPS launch in the company Recommendations

▲ Tolerance management - Introduction



Target group

Technicians, developers, designers, employees from the production, testing and quality departments as well as employees for in-company training.

Goals

- Be able to apply standards appropriately
- Be able to create drawings
- Read and understand drawings
- Recognize the connection between drawing creation and measurement technology