

Types of gauges for testing the accuracy of X-ray tomographs for industrial applications

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Accuracy of X-ray tomographs for industrial applications can be tested according to VDI/VDE 2630. Blatt 1.3 [2] or according to an unofficial draft ISO CT 10360-11 [3]. The guidelines included criteria for evaluating computer tomography for the four groups of parameters:

- parameters associated with the scan error (PF, PS),
- parameters associated with the length measurement error (E),
- parameters defining the resolution (Dg),
- parameters defining the depending dimensions - material (GS, GF, GG).

For the analysis of all parameters the special construction gauges are used. Example of gauges are shown in Fig. 1.



Fig. 1.
View of examples of the gauges

- [1] Ratajczyk E., Woźniak A.: *Coordinate Measuring Systems*. Publishing House of Warsaw University of Technology, Warsaw (in Polish), 2016.
- [2] VDI/VDE 2630. Blatt 1.3: *Computertomografie in der Dimensionalen Messtechnik*. Düsseldorf: 2009.
- [3] ISO CT 10360-11: *Geometrical Product Specifications (GPS) – Acceptance and reverification tests for coordinate measuring systems (CMS): CMMs using the principle of computed tomography (CT)*.