Product Information

**QUADRA-CHEK**

3D-Profiling

Software Option for IK 5000

for Measurement and Evaluation of 3-D Contours

May 2011
QUADRA-CHEK 3D-Proﬁling
Software Option for Measuring and Evaluating Three-Dimensional Measured Objects on Tactile or Multi-Sensor Measuring Machines

IK 5000 QUADRA-CHEK, the universal PC package solution for 2-D and 3-D measuring tasks, is equally suitable as initial equipment on a machine as well as for retrofitting. It is available in versions for three or four axes, and the optional expansions make it ready for all coordinate measuring technology applications and for video measuring microscopes. You can use it to measure two- and three-dimensional geometries and their relationships.

The 3D-Proﬁling software option is integrated in the standard software of the IK 5000, letting you use the entire software in the accustomed manner. This covers not only all the classical 2-D and 3-D measurements (line, circle, cylinder, torus, etc.), but also the enhancement for any 3-D contours.

Simple importing of 3-D models saved in IGES or STEP format, with subsequent orientation to any position for deﬁnition of the optimum direction of measurement
Overview of QUADRA-CHEK
3D-Profiling functions:

- **Importing** of 3-D models saved as IGES or STEP files
- **Orientation of the model** to any convenient position via 3-D rotation in all degrees of freedom
- Specification of any number of **measuring points** on the model (usually 100 measuring points)
- **Simple definition of tolerances** for lines and surfaces
- **Automatic generation of a measurement program** for automated measuring processes during measurement of the first part (teach-in)
- **Simple orientation of the measured object.** The exact position and orientation of the measured object can be determined either by standard methods (for example, with fixtures or dead stops) or, much more easily, by probing six points on the measured object (“six-point alignment”). 3D-Profiling automatically assigns the model to the measured object’s contour in the best possible manner.
- **Fine adjustment** of the association between the measured object and model after the measurement, in order to optimize the measured results (“best fit”).
- **Flexible output of measurement results:**
  - Graphic display
  - Measured-value tables with defined tolerances and management of measured values
  - Export of measured values via the data-report generator with the information you specify

Graphic display of the measurement results in the model, with directional arrows indicating the deviation, as well as information about the deviation.

Complete integration of the 3-D measurement results in the IK 5000 user interface.
Requirements

A code is entered to enable the 3D-Profilng software option as a function of IK 5000 QUADRA-CHEK. A multi-sensor or tactile measuring machine with an IK 5000 capable of 3-D geometries is a prerequisite for this function. See the configuration table for possible version designations.

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System requirements

The following is necessary for running QUADRA-CHEK 3D-Profilng:

- PC: ≥ quad-core Pentium, 2.8 GHz
- Operating system: Windows XP, Vista or 7 (32 Bit)
- RAM: ≥ 2 GB
- Hard disk with at least 1 GB available
- One PCI slot and one, two or three additional empty slots (depending on the version)
- Screen:
  - Resolution at least 1024 x 768 pixels; for the Video option: 22” widescreen, resolution at least 1680 x 1050 pixels

For more information

- Digital Readouts for Metrology Applications brochure

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