

Product Information

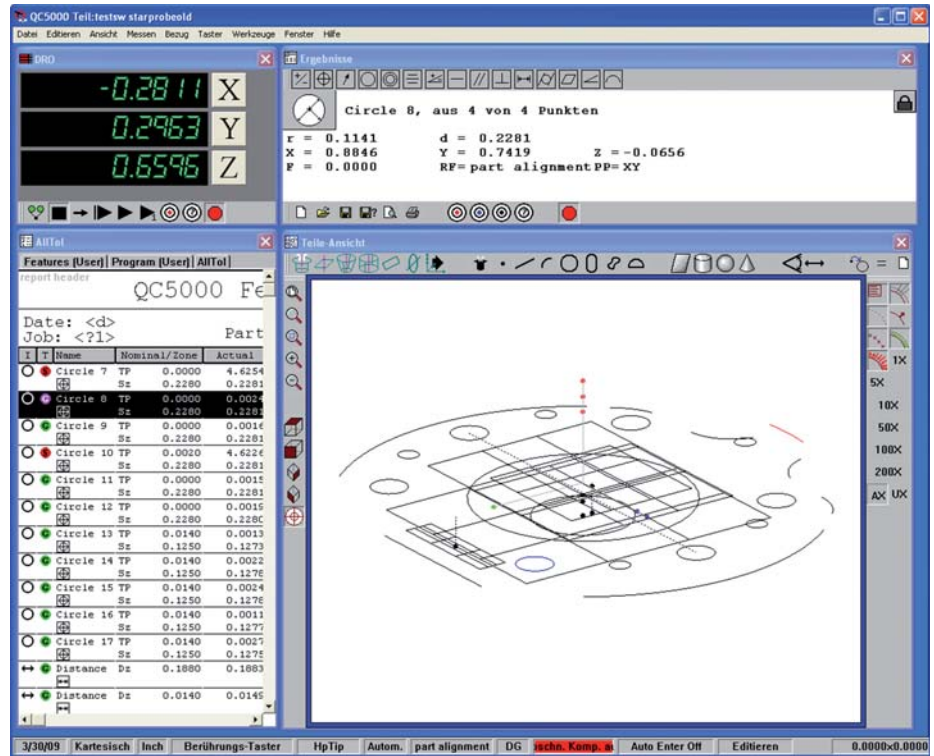
QUADRA-CHEK 3D-Profiling

Software Option for IK 5000
for Measurement and
Evaluation of 3-D Contours

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.

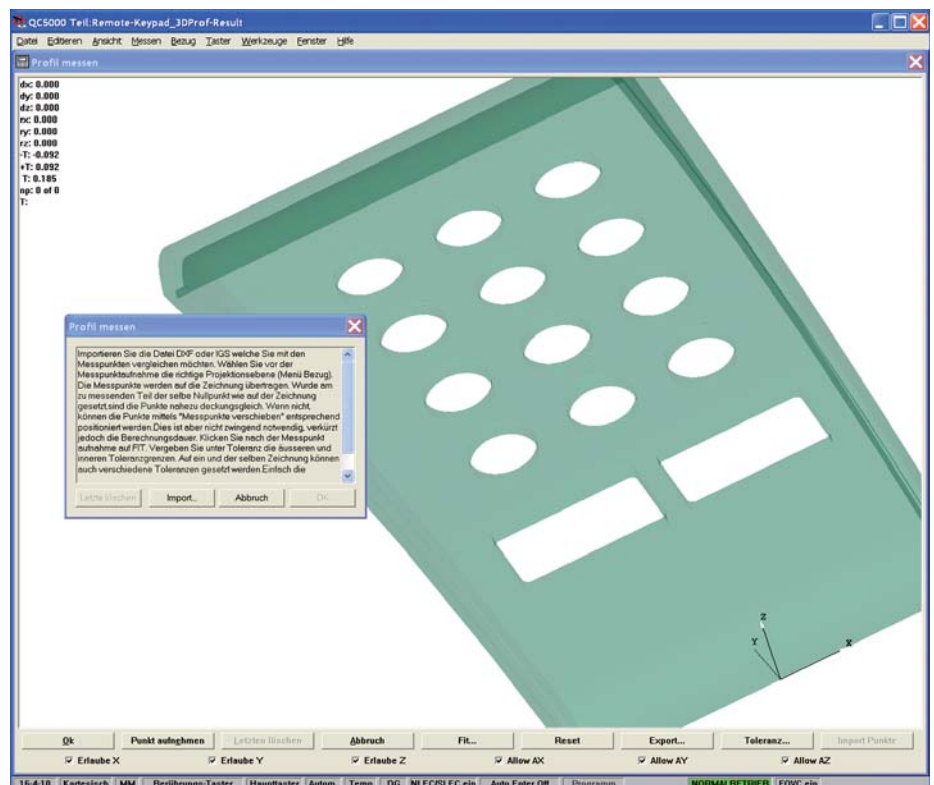


IK 5000 QUADRA-CHEK – the universal PC package solution for measuring machines

QUADRA-CHEK 3D-Profiling

The QUADRA-CHEK 3D-Profiling software option consists of measurement and evaluation features that facilitate the measurement of 3-D contours on multi-sensor and tactile measuring machines, and that graphically display the contour deviations. Naturally the data can be managed in the usual manner, and can also easily be transferred to other quality systems.

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.



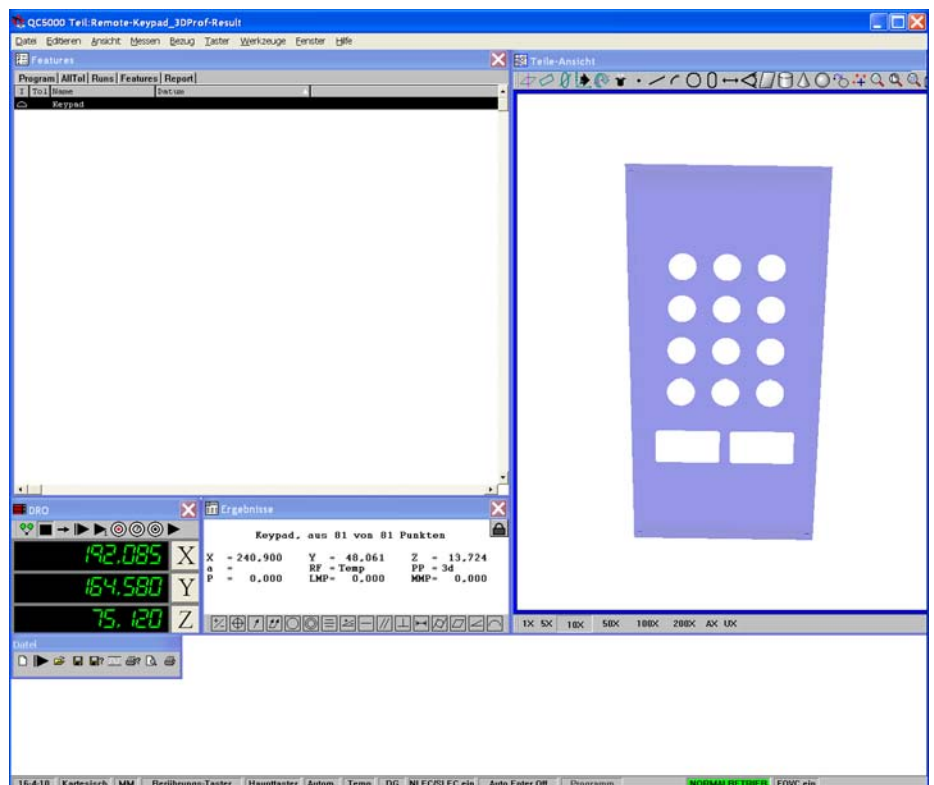
Simple importing of 3-D models saved in IGES or STEP format, with subsequent orientation to any position for definition of the optimum direction of measurement

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-Profiling 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.

	IK 5293	IK 5394-3D	IK 5494-3D	IK 5594
Axes	3 XYZ	4 XYZQ	4 XYZQ	4 XYZQ
3-D geometries	•	•	•	•
Optical edge detector	–	–	–	–
Video evaluation	–	•	•	•
Zoom and light control	–	•	•	•
Autofocus	–	–	•	•
Touch probe	•	•	•	TP200
CNC function	–	–	•	•

System requirements

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

- 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 1 024 x 768 pixels;
for the *Video* option: 22" widescreen,
resolution at least 1 680 x 1 050 pixels



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For more information

- *Digital Readouts for Metrology Applications* brochure