

5X-Analyser HeMuTec

Productivity | Process Optimisation, Precision



Series

C

F

HF

MCH-C

Control

SIEMENS Powerline

SIEMENS Solutionline

SINUMERIK ONE

The 5X-Analyzer is a digital sensor system for static and dynamic determination of the most relevant geometric errors of five-axis machine centres including evaluation, documentation and compensation of these deviations. The sensor system consists of two measuring probes installed at the tool, which record the position deviations of a reference ball installed at the workpiece. By rotating the 45° sensor via the main spindle, the deviations of the three linear axes can be determined by only two sensors. By utilizing the tool centre point function, the measuring system continuously remains between the various points in space at the highly precise reference measuring ball and is thus able to record static as well as dynamic failures of the machine. The communication between 5X-Analyzer, machine control and analyzing app [Tablet or Smartphone] happens via a Bluetooth USB stick. By this no additional machine hardware is necessary and the measuring method can be automated completely and very easily for the operator. The 5X-Analyzer is also compatible in reverse for older machines. With the app machine failures are automatically visualized, digitally evaluated and stored in a database. The calculated compensation tables are automatically transferred from the app to the USB-Stick and thus directly be read and activated by the machine.

Characteristics

- _ Calibration of geometric deviationsCompatible with all 5-Axis KinematicsHigh precision constantlySimple applicationMinimize production of rejectsBackwards compatible with older controls

Benefits

- _ Increase of the process reliabilityLess reject partsIncreasing the level of automationAttracting new customers through higher quality of the partsReduction of QS costs

Requirements

- _ 5-axis machine / not 3+2-axisMilling Technology Package [Solutionline = Sinumerik MDynamics 5-Axis Milling Technology Package] [ONE = ONE Dynamics 5-Axis Milling]TRAORI Transformation Orientation = Automatic 5-axis transformation of tool orientationDeflection compensation = Automatic correction of deformation errors