Software for Measurement data analysis

Efficient, timely data analysis and reporting is equally as important as the measuring of the data itself. The ‘Tool Analyser’ together with the ‘Tool Measurement’ software makes recording and analysing test data even simpler.

The ‘Tool Analyser’ software visualises the forces on the tool during machining and provides a platform to compare data from different tests. In addition, it offers many new opportunities for analysis of tools using the ‘spike®_polar’.

Features

• Direct graphic comparison of measuring data:
  • Axial force
  • Torque
  • Bending
  • Temperature

• Simple determination of statistical key figures (average, maximum and incline)
• Zoom function
• Adjustable filter
• spike®_polar representation
• Prefabricated report functions for Microsoft Word
• Export function to Excel

New Functions

• trigger function
• tool life plotting
• spike®_polar stacking
• graphic spike®_polar calculation

as diagnostic tool with tool analyser
• Offline process analysis
• Data comparison
• Tool life plotting

your benefit
• Solve problems faster
• Increase tool life or productivity
• Tool / process / machine/ lubricant / coating - development
• Analysis of serial production data
easy analysis and comparison
Layer multiple graphs of different tests on top of each other to compare process parameters and configuration (spindle speeds, feed rates, coolants, tools, etc.). Record data to understand the impact of changes and diagnose issues within production.

trigger function
spike® can use the force on the tool to stop/start data recording. The ‘Trigger’ begins data recording so only the relevant information is recorded. Time when tool holder is idol or other holders are in use will not be recorded, minimising the file sizes. Function divides data into component or operation numbers. Function used in tandem with ‘Tool Life Plotting’.

tool life plotting
Plot the forces on the tool with respect to the number of process completed, quantify tool lifetime and compare life spans of different tools. The Axial Force, Torque or Bending Moments can be chosen to display how the forces on the tool change over the life time of the tool. Tool Life Plotting uses the process numbers created by the Trigger Function to order data files.

spike®_polar stacking
In spike®_polar Stacking multiple spike®_polar’s can be stacked on top of one another. Spike®_polar Stacking allows for the optical recognition and easy documentation of variations in tool character.

spike®_polar calculation
With the ‘spike®_polar Calculation’ you can analyse the spike®_polar graphs to understand particular aspects or changes occurring during machining processes. Calculate the tool runout, change in cutting edge angle as well as the absolute value recorded on specific points of the tool.