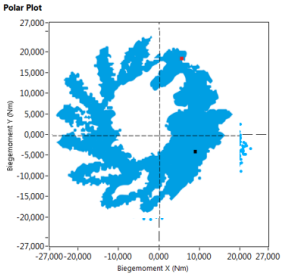
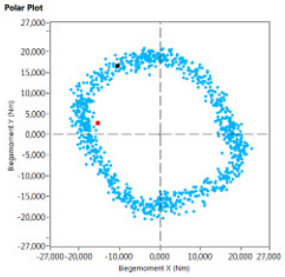
promicron
wireless solutions

spike®

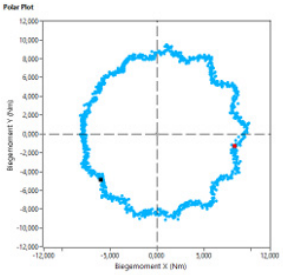
What do these images and scenarios have in common?



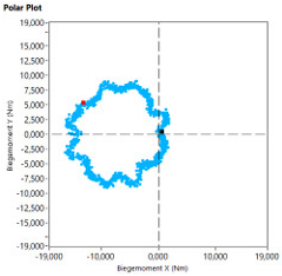
„jumping“



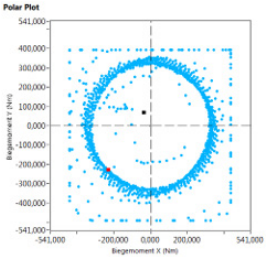
„worn“



„badly dressed“

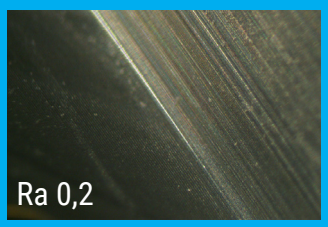


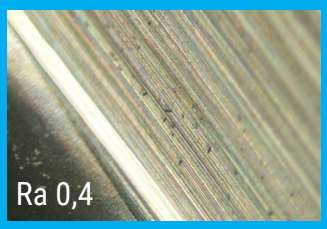
„unbalance“

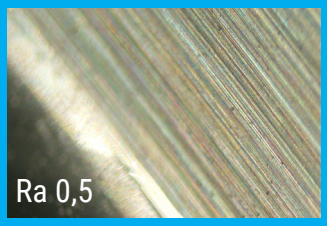


„tool breakage“

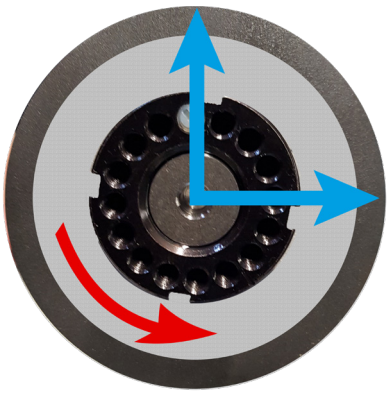
Answer: „Conditions that lead to poor quality“

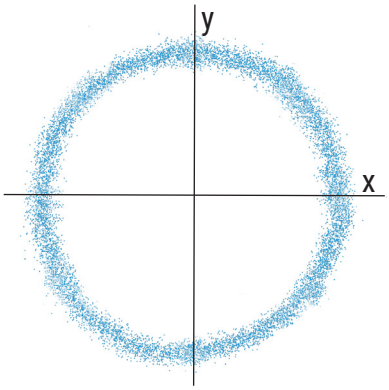






How does spike® work?
- sensoric tool holder -

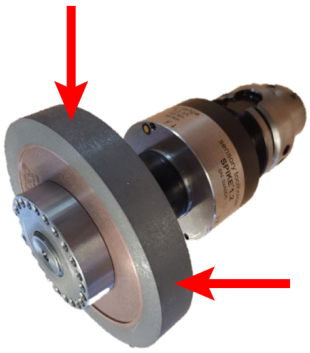


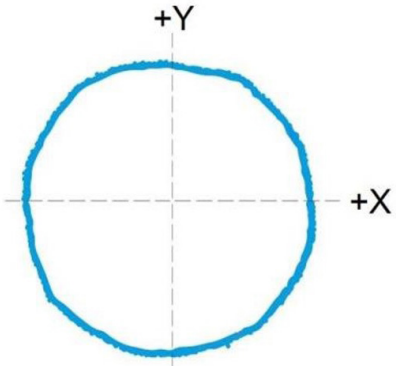


temperature axial force bending moment torsion

ISF

Monitoring grinding pressure 360°

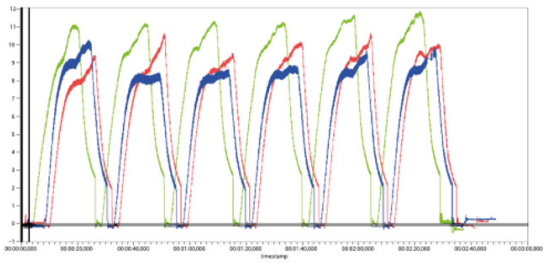




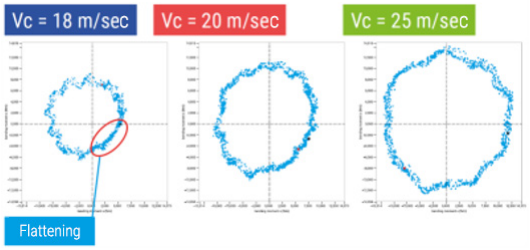
spike® shows bending moments from tool coordinate view,
NOT in tool / machine coordinates

OPTIMIZATION OF THE CUTTING VALUES

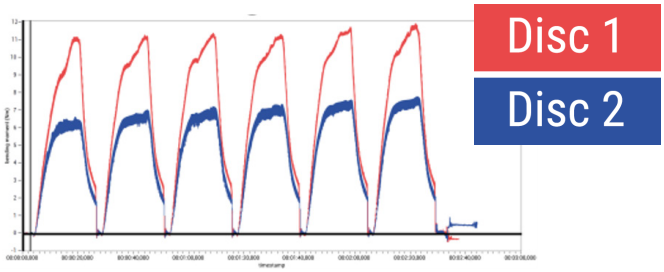
Torsion moment

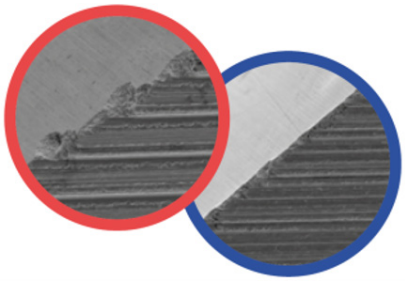


Bending moment



COMPARISON OF GRINDING WHEELS



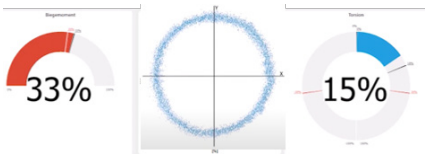


SOLUTIONS AND APPROACHES

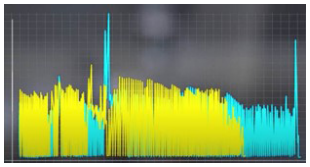
Assistance

Diagnosis

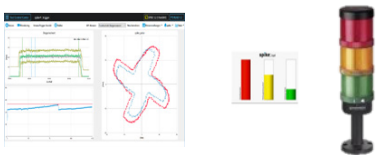
Monitoring



Visualization



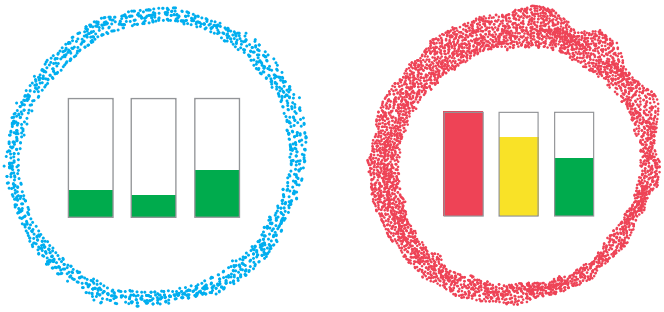
Optimization



in-process scrap part detection

Summary of benefits:

- Condition assessment of the grinding wheel over 360°
- Recognition of process errors & influencing factors, e.g. runout defects (tool, machine)
- Quality assurance and efficiency increase through demand-oriented conditioning
- Detailed process analysis and optimization to reduce costs
- Plug & Play < 1 minute
- Use along the value chain



NEW

WORN-OUT

Inline Quality Control - 360°

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inquiry@pro-micron.de