

Ryfelmeides

SIMPLY PRECISE

Dynamic measurement of blades

Our new algorithm, specially developed for the dynamic recording of blades makes it possible to quickly and dynamically record individual blades with a high point density.



MICROSCOPY + METROLOGY SERVICES
Suisse made

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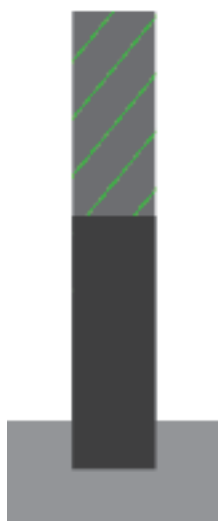
Measurement in the shaft measurement machine



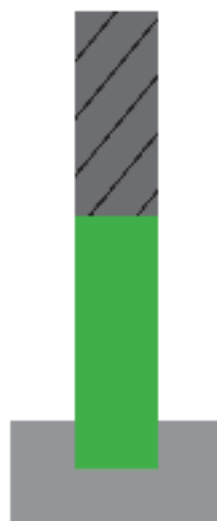
Scan here to see how the measurement works.

The camera records the measurement points during the rotation and assigns them to the relevant blade. This is achieved by using a camera that captures approx. 60 images/sec. Measurement speeds, for example, of 1 sec./revolution at a diameter of 20 mm can be implemented easily.

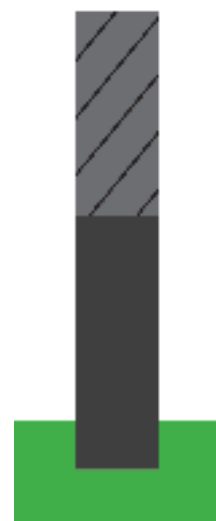
In conjunction with our patented, dynamic wobble compensation, a special feature is that the evaluation can be completed differently depending on the reference.



The blade itself



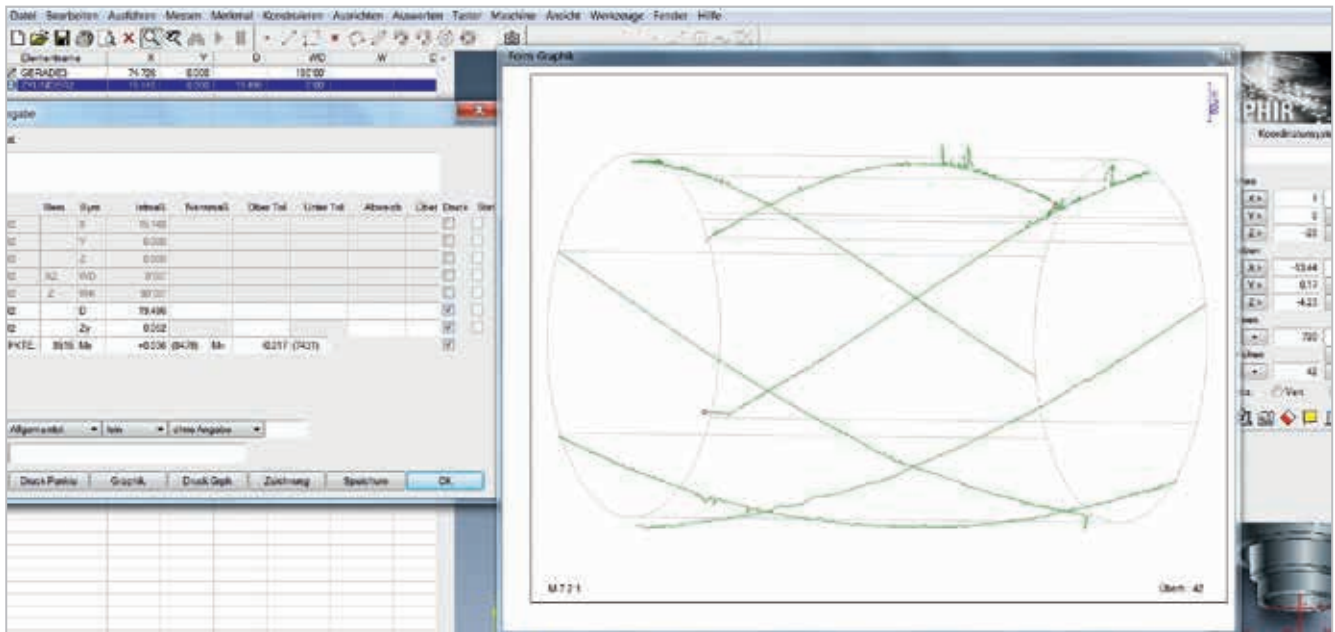
Relationship between blade and tool shank



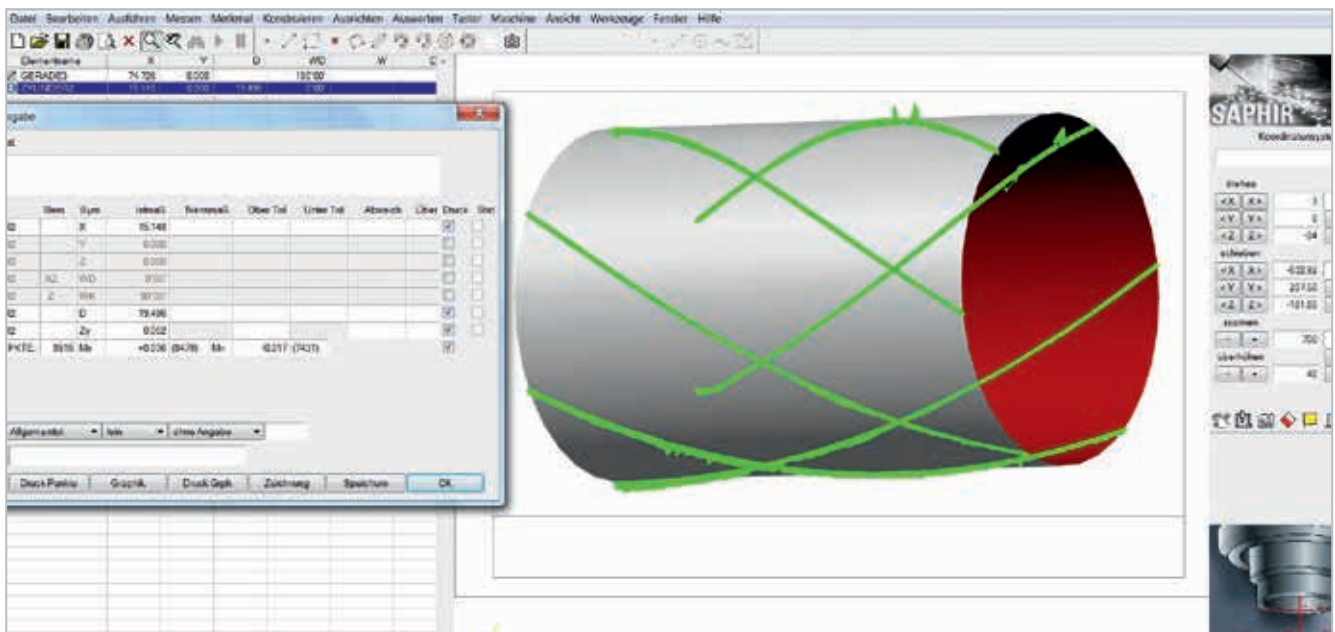
Relationship between blade and tool holder (e.g. collet chucks, chuck, conus, etc.)

References can include:

Evaluation – 2D view



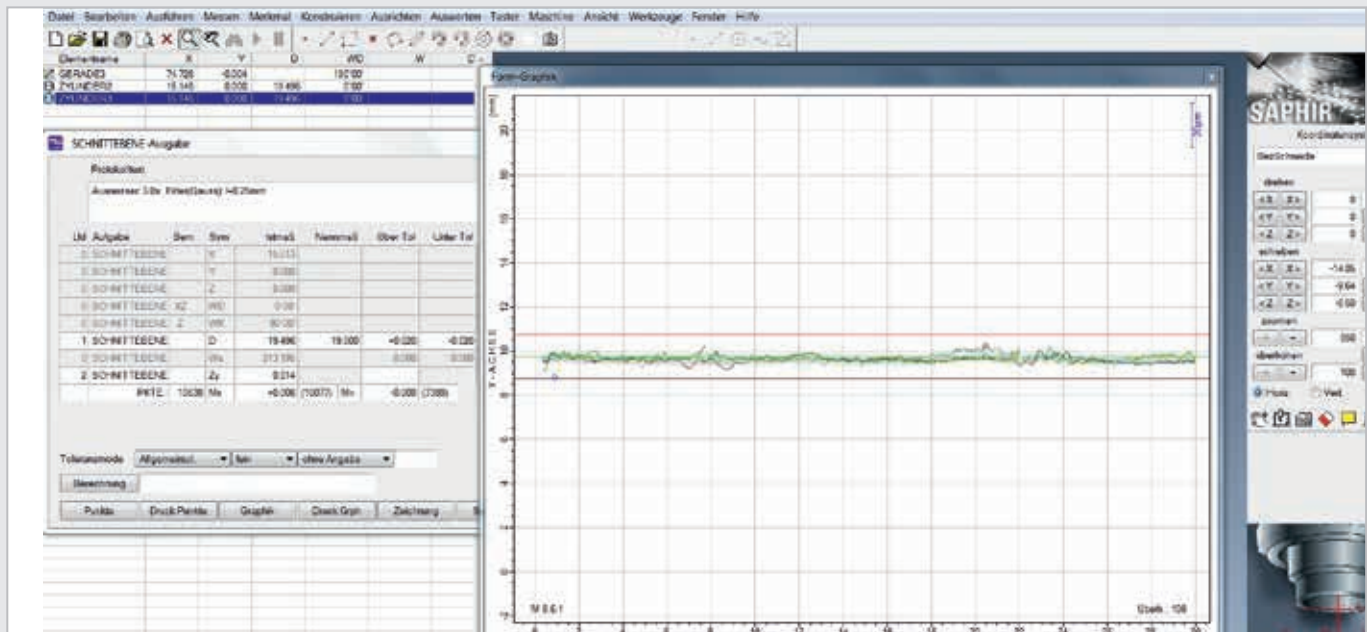
Graphic evaluation of the blade: Illustrated as a wire frame model.



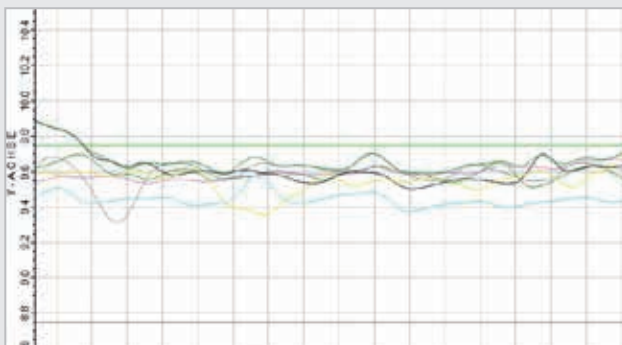
Graphic evaluation of the blade: Illustrated as 3D model.

The evaluation – 3D view

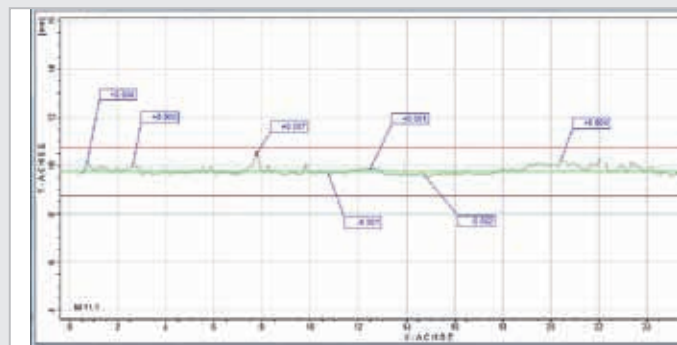
The evaluation can be completed individually for each blade or for all blades at the same time as a "minimum circumscribed circle (edge)". The causes of tool faults can thus be determined and documented accurately.



Geometrical evaluation of individual blades. Each blade is illustrated in its own colour, so that exact assignment is possible at any time.



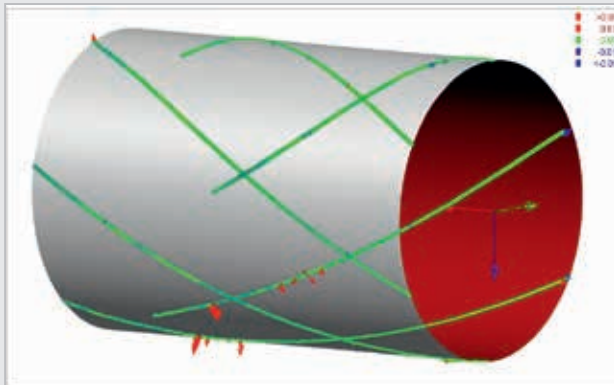
Details are more easily recognisable in the enlarged view.



The minimum circumscribed blade corresponds to the actual contour cut by the milling cutter dependent on the selected reference (blade, tool shank, tool holder).

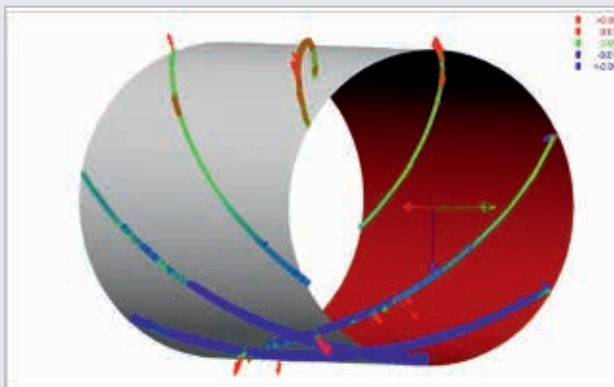
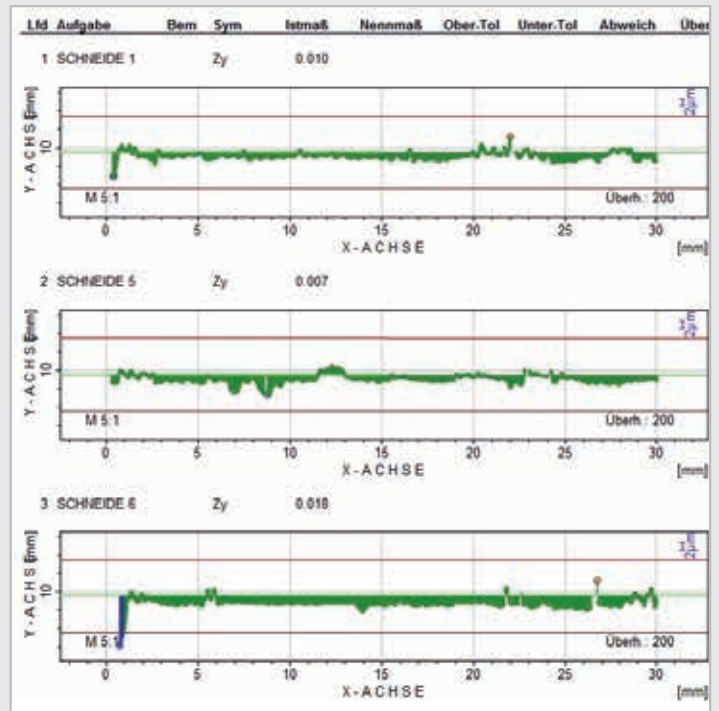
Report

The measurement results are automatically adjusted or calculated based on the selected reference (blade, tool shank, tool holder) and are issued as detailed tables and graphics in measurement logs.



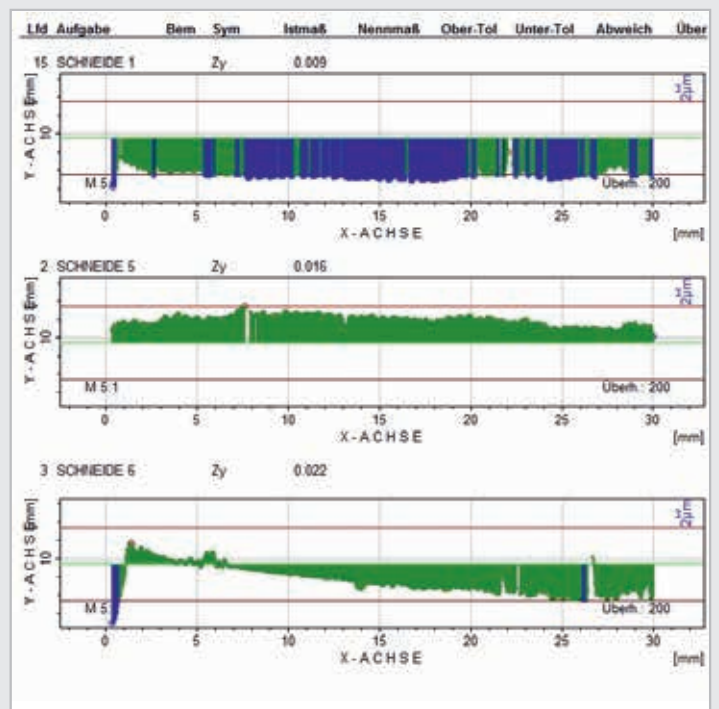
Left: Overview of the blades in relation to the blades themselves.

Right: Associated report with individual evaluation of each blade.



Left: Overview of the blades in relation to the tool shank.

Right: Associated report with individual evaluation of each blade.



How do we achieve this?

SAPHIR

SAPHIR measurement and analysis software

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