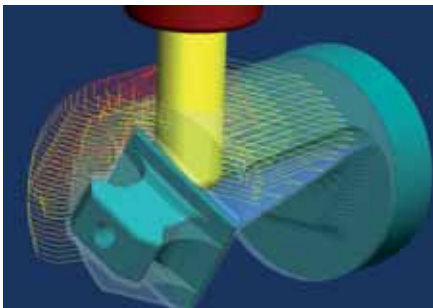
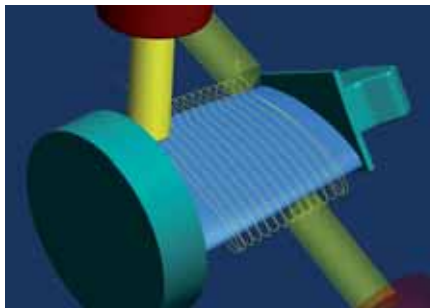


Single Blade: milling on a DZ 12K S MAGNUM five axis high speed

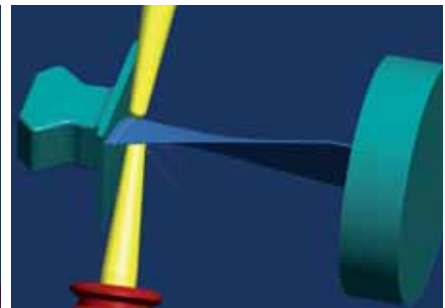
The single blade package of *hyperMILL*® offers optimised machining strategies for turbine blade machining. For efficient programming, special requirements on geometry and technology are considered. Beside the optimised machining strategies, general 2D, 3D and 5AXIS features are available in *hyperMILL*®. This offers the user a whole set of machining strategies and the freedom of choice to find the best and efficient way to machine the part.



2D and 3D strategies: For efficient roughing and finishing of turbine blades with any hub and shroud geometry, different strategies are available – like arbitrary stock roughing, profile and Z-level finishing and contouring.



5AXIS blade top milling: Blade surfaces will be finished in a continuous spiral. With endmills and bullnose endmills, the lead angle is automatically adjusted to avoid tool contact (machining) with the rear side.



5AXIS blade swarf cutting: Through the rolling ball radius, the tool holds direct contact with the blade and with the limit of the lateral surface at the same time. A perfect transition to the next blade will be created.

Machine: DZ 12K S MAGNUM five axis high speed

Main Spindle	RPM range	up to 24.000 RPM
Workspace	Rapid traverse/feed rate Traverse path X/Y/Z	75 m/min 550/400/360 mm
NC table	Clamping surface Swivel range (A/B-axis) Rotative range C-axis Max. workpiece weight	C-axis 2 x Ø 245 mm A-axis +/- 120° C-axis 2 x 0 up to 360° 2 x 200 kg
Tool	Tool magazine Milling performance Tool change time Chp-to-chip time Max tool length /-Ø Tool adapter	2 x 16 (optional: 2 x 42/70) 2 x 150 cm³/min 0,9 sec 2,4 sec 240 mm/Ø 85 mm HSK-A 63 DIN 69893
Automation	Controller	SINUMERIK 840D
Workpiece	Dimensions Material	23/26/53 mm 1.4305



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