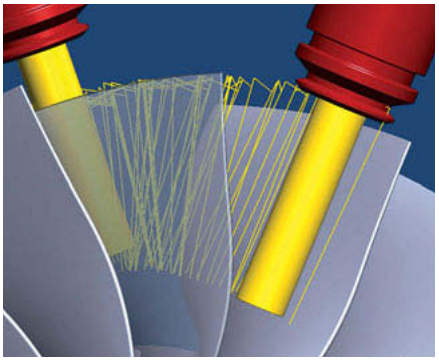
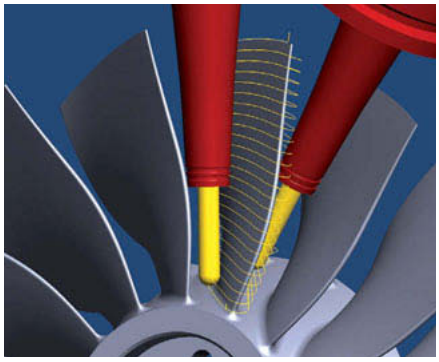
hyperMILL®

Blisk: milled on a ALZMETALL GS 650/5-T

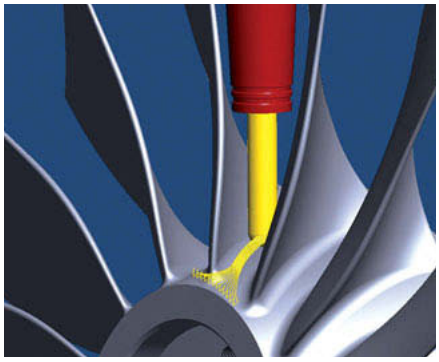
Complex multiblade geometries such as blisks and impellers place special demands on milling technology. Collision-free tool paths are difficult to program, and they are only the starting point for efficient machining. The spaces between the blades have to be exploited optimally so that even for the most rigid tools will be suitable. Technology parameters such as feedrates and approach angles have to be adapted on a job-by-job basis. The multiblade package provided with *hyper*MILL® integrates strategies and automations that address these special requirements and make for simple programming.



Multiblade plunge roughing Plunge roughing is a useful alternative when horizontal feed rates do not permit effective machining due to poor machining dynamics with long narrow tools.



Point finishing This machining strategy enables continuous spiral machining of blades. The tool maintains point contact at all times. Point finishing produces flawless transitions between contiguous areas.



Hub finishing Tool paths can be accurately adapted to the aerodynamic requirements and visual appearance of the hub area with just a few mouse clicks.

Machine: GS 650/5-T

Main Spindle (motor spindle)	**RPM range**	**18.000 RPM^{-1} /23 kW**
Workspace	**Rapid traverse X/Y/Z** **Traverse path X/Y/Z**	**60.000 mm/min** **650/650/550**
NC rotary table	**Clamping surface** **Tilt area** **Traverse path C axis** **Max. table load**	**ø 360 mm** **±120°** **infinite** **500 kg**
Automation	**Controller**	**HEIDENHAIN iTNC 530**
Workpiece	**Dimensions** **Material**	**ø 300 mm x 80 mm** **Aluminium**

OPEN MIND THE CAM FORCE

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