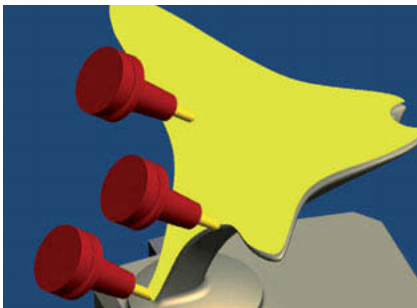
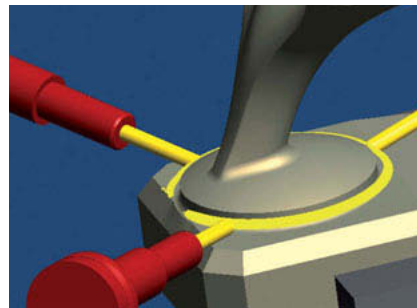


Skate fish: milled on a ALZMETALL GS 1000/5-FDT

The CAD/CAM solution, *hyperMILL®* for *hyperCAD®-S*, enables complex surfaces to be easily designed in CAD so that they can be milled with a higher surface quality. The broad spectrum of machining strategies under one interface, ranging from 2.5D, 3D, 3+2 machining and automatic indexing to 5-axis simultaneous machining, enables the most suitable strategy to be selected. The workspace monitoring checks whether the machining jobs can be carried out with the chosen set-up on the designated machine given the necessary pivoting angles and required tool lengths.



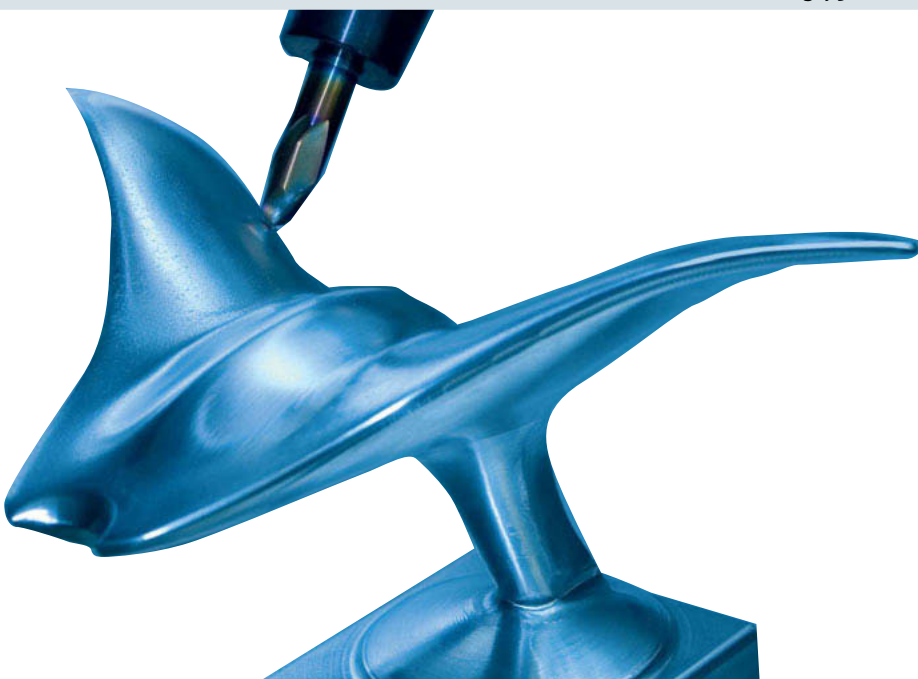
Milling with fixed option Because of the top surfaces strong curvature, 3+2 milling with ball nose cutter was used to ensure the best surface quality.



5-axis rest machining These rest material regions, all in undercut situations, were machined in one continuous motion without retract.

Maschine: GS 1000/5-FDT

Main Spindle (motor spindle)	RPM range	24.000 min⁻¹
Workspace	Rapid traverse/feedrate Traverse path X/Y/Z	45 (60) m/min 800/800/600
AC-NC tilting rotary table	Clamping surface Traverse path A axis Axis rotary speed (RPM) Turning area C axis Max. table load	ø 630 mm +120°/-120° max. 300 min⁻¹ 360° infinite 500 kg
Automation	Controller	Siemens Sinumerik 840 D
Workpiece	Rohteil Material	300 x 420 x 280 mm Aluminium AlMg 4.5 Mn



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