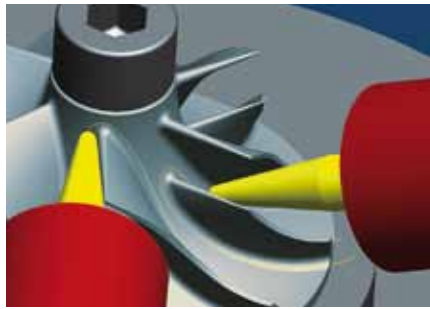
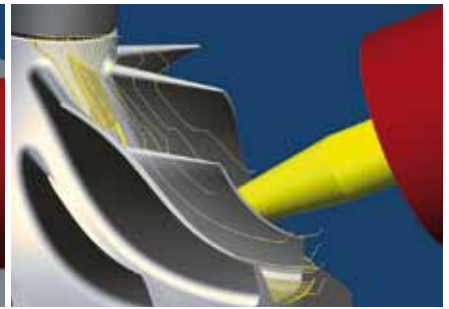


Impeller: Milled on a HSC 20 *linear*

Small parts – in high volumes. When manufacturing impellers for passenger car turbochargers in high volumes, every second of production time counts. With the multiblade package, CAM programming is extremely easy. Plus, the software allows operators to intervene as required, thereby optimising the tool orientation and feedrate so that machining time is reduced to a minimum. In addition, integrated automated functions minimise the number of input parameters and reduce the time required for programming. Reliable collision checking and avoidance, along with tool length calculation, ensure maximum process reliability.



Multiblade swarf cutting: Swarf cutting reduces machining times. The Multiblade Flank Milling strategy automatically calculates the 'snuggest' fitting tool position.



Multiblade roughing: With this strategy, the blades of a pre-turned stock are machined in a continual process using path distribution that matches the flow, various infeed options and local optimisation features

Machine: HSC 20 *linear*

Main drive (motor spindle)	RPM range up to	42.000 min ⁻¹
Workspace	Rapid traverse and feedrate Traverse path X/Y/Z	60 m/min 200/200/280 mm
NC swivelling rotary table	Worktable area Tilt angle (A axis) C axis range Max. workpiece weight	Ø 200 mm -10° – +130° 360° 10 kg
Tool	Tool magazine Max. tool length/diameter Tool adapter	24 spaces 200 mm/30 mm HSK-E32
Automation	Controller	Siemens 840D automation controller solution line
Workpiece	Dimensions Material	Ø 49 mm, 6 blade pairs Aluminium

Fast, faster: Impeller milled in three minutes

Machine: HSC 20 linear

Job description	Tool	Diameter [mm]	Corner radius [mm]	No. of teeth	Conic angle	Spindle RPM [min ⁻¹]	Feedrate [mm/min]	Machining time [min]
		D	R	z	W	n	F	t
Roughing	Ballmill	2	1	3	6°	36.000	8.000	2'19"
Main blade finishing	Ballmill	2	1	3	6°	36.000	6.000	0'21"
Splitter blade finishing	Ballmill	2	1	3	6°	36.000	6.000	0'20"
(Total) production time								3'00"



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