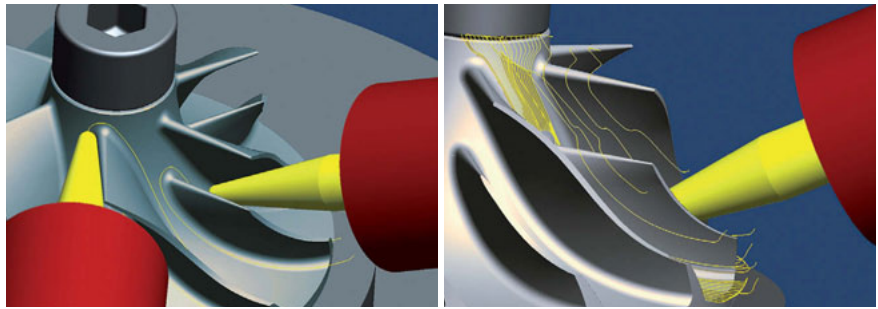


Impeller: Milled on a HSC 20 linear

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