

Machine			
Spindle type			
Max RPM	12.000		
Power Kw			
Cutter holder	Shrink Holder		
Workpiece material	1.2312 Holdax		
Hardness	Not hardened		
Application			
Side milling	<input checked="" type="checkbox"/>	Up-milling	<input type="checkbox"/>
Slotting	<input type="checkbox"/>	Down-milling	<input type="checkbox"/>
Profiling	<input checked="" type="checkbox"/>	Ramping	<input type="checkbox"/>
Plunging	<input type="checkbox"/>	Circular	<input type="checkbox"/>



Cutter supplier	
Cutter description	
Cutter diameter eff.	Ød mm
Number of teeth	z
Carbide grade	

Test 1		Test 2	
van Hoorn Carbide		Competitor	
VHKF 2 030 078 06 03			
3		3	
2		2	
03			

Cutting conditions	
Cutting speed	V <sub>c</sub> m/min
Revolution	n rpm
Feed per tooth	f <sub>z</sub> mm
Table feed	V <sub>f</sub> mm/min
Depth of cut	a <sub>p</sub> mm
Width of cut	a <sub>e</sub> mm
Length of cut	L mm
Chip removal rate	Q cm <sup>3</sup> /min
Chip thickness	Hm mm
Coolant type	
Coolant pressure	Bar
Cutting time / comp	T <sub>comp</sub> min
Toollife	T <sub>total</sub> min
Power consumption	P Kw
Edge wear	V <sub>b</sub> mm

108		108	
11.500		11.500	
0,046		0,033	
1.050		760	
0,09		0,07	
0,02		0,02	
0,00189		0,00106	
0,00373		0,00270	
dry / air / minimum lub. / emulsion		dry / air / minimum lub. / emulsion	
Internal	External	Internal	External
380 min		30 min	
0,2mm		broken	

Remarks

Test 1: Production through the night. Surface finish very good. Toollife more than 6 hours. Started with Vf 850 mm/min, Ap 0,07mm. Improved cutting conditions to values as above.

Test 2: After 30 minutes milling the endmill was broken.