Test report no: 045-12

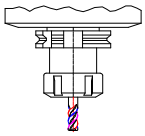
VAN HOORN CARBIDE

Machine	Mikron VCE600
Spindle type	Henninger 822
Max RPM	36.000
Power Kw	
Cutter holder	Collet Chuck ER11

Workpiece material	1.2343
Hardness	40 HRc

Application			
Side milling	☐	Up-milling	☐
Slotting	☐	Down-milling	☐
Profiling	x	Ramping	☐
Plunging	☐	Circular	☐

Sketch



		Test 1	Test 2
Cutter supplier		**van Hoorn Carbide**	**Competitor**
Cutter description		VHMSK 2 008 064 06 03 L050	
Cutter diameter eff.	Ød mm	0,8	0,8
Number of teeth	z	2	2
Carbide grade		03	TiAlN coated
Cutting conditions			
Cutting speed	V_c m/min	80	80
Revolution	n rpm	32.000	32.000
Feed per tooth	f_z mm	0,010	0,010
Table feed	V_f mm/min	645	645
Depth of cut	a_p mm	0,2	0,2
Width of cut	a_e mm	0,02	0,02
Length of cut	L mm		
Chip removal rate	Q cm^3/min	0,0026	0,0026
Chip thickness	Hm mm	0,00159	0,00159
Coolant type		dry / air / minimum lub. / emulsion	dry / air / minimum lub. / emulsion
Coolant pressure	Bar	Internal External	Internal External
Cutting time / comp	$T_{comp.}$ min		
Toollife	T_{total} min	240	80
Power consumption	P Kw		
Edge wear	V_b mm		
Successful		Yes / Average / No	Yes / Average / No

Remarks

No broken tools, only unsharped edges, VHMSK gives better surface finish.
Workpiece is a part of mold; cover for halogen (automotive piece)