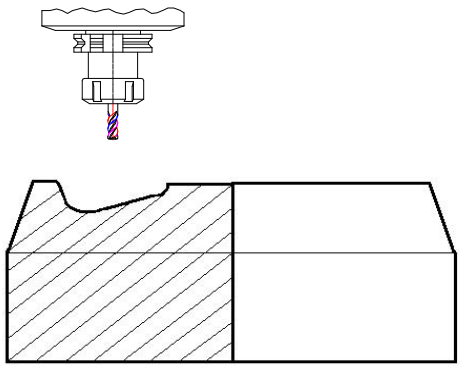
Test report no: 005-05

Machine	Chiron M2000
Spindle type	HSK
Max RPM	12.000
Power Kw	
Cutter holder	Collet Chuck

Workpiece material	St 52.3 (1.0570)
Hardness	Not tempered

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

Sketch



Workpiece: Ø120 x 50 mm

		Test 1	Test 2
Cutter supplier		van Hoorn Carbide	Competitor
Cutter description		HABM 2 05 0078 05 03	
Cutter diameter eff.	Ød mm	5	5
Number of teeth	z	2	2
Carbide grade		03	TiAlN
Cutting conditions			
Cutting speed	V_c m/min	173	118
Revolution	n rpm	11.000	7.500
Feed per tooth	f_z mm	0,077	0,025
Table feed	V_f mm/min	1.700	380
Depth of cut	a_p mm	0,05	0,05
Width of cut	a_e mm	0,15	0,15
Length of cut	L mm		
Chip removal rate	Q cm^3/min	0,013	0,003
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	32	
Toollife	T_{total} min		100
Power consumption	P Kw		
Edge wear	V_b mm	Inappreciable	>0,2mm

Remarks

Test 1: The product was made 2 times quicker than with the competitor Endmill

Test 2: The endmill had a large visual Vb