Test report no: 012-04

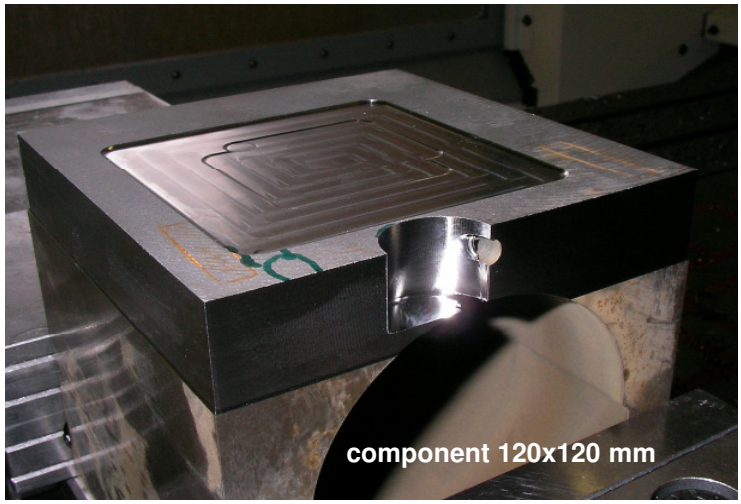
VAN HOORN CARBIDE

Machine	DMU125T highline
Spindle type	ISO 40
Max RPM	
Power Kw	
Cutter holder	

Workpiece material	1.2379
Hardness	62HRC

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

Sketch



		Test 1	Test 2
Cutter supplier		van Hoorn Carbide	Competitor
Cutter description		VHPMR 6 100 078 10 40 100	
Cutter diameter eff.	Ød mm	10	10
Number of teeth	z	6	6
Carbide grade		40	TiAlN
Cutting conditions			
Cutting speed	V_c m/min	100	100
Revolution	n rpm	3.180	3.180
Feed per tooth	f_z mm	0,60	0,05
Table feed	V_f mm/min	11.500	1.000
Depth of cut	a_p mm	20	20
Width of cut	a_e mm	0,1	0,1
Length of cut	L mm	480	
Chip removal rate	Q cm^3/min	23	2
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		
Power consumption	P Kw		
Edge wear	V_b mm		

Remarks
Test 1, with Vf=11500 Ra above 2,4
Test 1, with Vf=8000, fz=0,4 Ra around 1,6
Test 1, with Vf=5000 fz=25 Ra around 1,2

We are 8-10 times faster.
After 8 times 480 mm, still no wear to see.

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