Test report no: 019-16

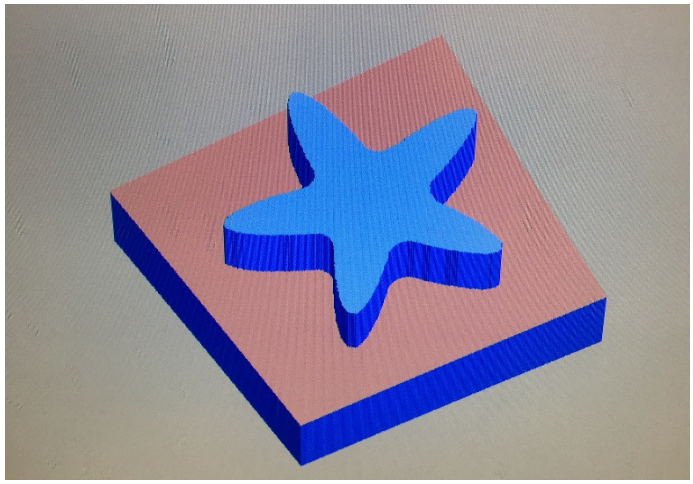
VAN HOORN CARBIDE

Machine	DMG
Spindle type	
Max RPM	
Power Kw	
Cutter holder	Shrink

Workpiece material	1.2379
Hardness	Not Hardened

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

Sketch



		Test 1	Test 2
Cutter supplier		**Competitor**	**van Hoorn Carbide**
Cutter description			VHTS 6 120 083 12 04
Cutter diameter eff.	Ød mm	12	12
Number of teeth	z	4	6
Carbide grade			
Cutting conditions			
Cutting speed	V_c m/min	150	148
Revolution	n rpm	3.978	3.922
Feed per tooth	f_z mm	0,100	0,128
Table feed	V_f mm/min	1.587	3.006
Depth of cut	a_p mm	34	24
Width of cut	a_e mm	0,6	0,8
Length of cut	L mm		
Chip removal rate	Q cm^3/min	32,37	57,72
Chip thickness	Hm mm	0,02230	0,03298
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		
Successful		Yes / Average / No	Yes / Average / No

Remarks

Trochoidal milling against competitor, productivity raised with 80%!

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