Test report no: 057-08

VAN HOORN CARBIDE

Machine	
Spindle type	
Max RPM	
Power Kw	
Cutter holder	Hydro Chuck

Workpiece material	14Cr17Ni2
Hardness	-

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

Sketch

		Test 1	Test 2
Cutter supplier		van Hoorn Carbide	Competitor
Cutter description		HAMF 8 200 102 20 03 050	
Cutter diameter eff.	Ød mm	20	20
Number of teeth	z	8	6
Carbide grade		03	TiAlN
Cutting conditions			
Cutting speed	V_c m/min	157	157
Revolution	n rpm	2.500	2.500
Feed per tooth	f_z mm	0,035	0,035
Table feed	V_f mm/min	700	525
Depth of cut	a_p mm	50	50
Width of cut	a_e mm	0,2	0,2
Length of cut	L mm		
Chip removal rate	Q cm^3/min	7,00	5,25
Chip thickness	Hm mm	0,00350	0,00350
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	200 components	200 components
Power consumption	P Kw		
Edge wear	V_b mm		

Remarks

Due to 8 flutes compared to 6 flutes, higher table feed, so also higher chip removal rate.
~20% faster than competitor

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