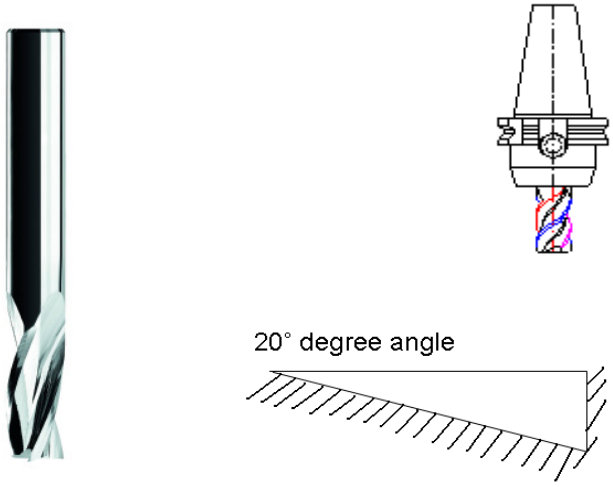
Test report no: 042-08

Machine	Hartford VMC1600
Spindle type	Sk 50
Max RPM	8.000
Power Kw	
Cutter holder	Weldon

Workpiece material	Aluminium
Hardness	AlMgSi-1

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

Sketch



		Test 1	Test 2
Cutter supplier		**van Hoorn Carbide**	**van Hoorn Carbide**
Cutter description		VHLA 3 200 102 20 15	VHLA 3 200 102 20 15
Cutter diameter eff.	Ød mm	20	20
Number of teeth	z	3	3
Carbide grade		15	15
Cutting conditions			
Cutting speed	V_c m/min	250	250
Revolution	n rpm	3.980	3.980
Feed per tooth	f_z mm	0,134	0,134
Table feed	V_f mm/min	1.600	1.600
Depth of cut	a_p mm	8	8
Width of cut	a_e mm	10	20
Length of cut	L mm		
Chip removal rate	Q cm^3/min	128,00	256,0
Chip thickness	Hm mm	0,09475	0,13400
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 and Test 2 are made with same endmill.
Test is still running, total time is already 2 hours.
Test 2, ramping under 20˚ degree angle.

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