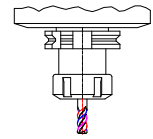


Machine	Hermle C600U	
Spindle type	SK40	
Max RPM	18.000	
Power Kw		
Cutter holder	Hydro Chuck	
Workpiece material	H40S Carbide	
Hardness	89,9 HRA	
Application		
Side milling	<input checked="" type="checkbox"/>	Up-milling <input type="checkbox"/>
Slotting	<input type="checkbox"/>	Down-milling <input type="checkbox"/>
Profiling	<input checked="" type="checkbox"/>	Ramping <input type="checkbox"/>
Plunging	<input type="checkbox"/>	Circular <input type="checkbox"/>

Sketch



Cutter supplier	
Cutter description	
Cutter diameter eff.	Ød mm
Number of teeth	z
Carbide grade	

Test 1	Test 2
van Hoorn Carbide	Competitor
VHDB 2 060 078	
6	3
2	2
Diamond	CBN

Cutting conditions	
Cutting speed	V_c m/min
Revolution	n rpm
Feed per tooth	f_z mm
Table feed	V_f mm/min
Depth of cut	a_p mm
Width of cut	a_e mm
Length of cut	L mm
Chip removal rate	Q cm ³ /min
Chip thickness	Hm mm
Coolant type	
Coolant pressure	Bar
Cutting time / comp	T_{comp} min
Toollife	T_{total} min
Power consumption	P Kw
Edge wear	V_b mm

302	151
16.000	16.000
0,041	0,030
1.300	960
0,03	0,01
0,03	0,01
0,00117	0,00010
0,00287	0,00173
dry / air / minimum lub. / emulsion	dry / air / minimum lub. / emulsion
Internal External	Internal External
98 min	
	12 min

Remarks

Test 1. Milling on Carbide material. After 162 min there is some wear visible, but endmill still can be used.
 Test 2. Milling on Carbide material. After 12 min endmill is not usable anymore.