Test report no: 011-06

Machine	Ingersoll OPS 600
Spindle type	
Max RPM	40.000
Power Kw	
Cutter holder	Shrink Holder

Workpiece material	Poco Graphite
Hardness	G1700

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

Sketch

Workpiece; 62 x 62 x 40mm

		Test 1	Test 2
Cutter supplier		**van Hoorn Carbide**	**Competitor**
Cutter description		VHMGK 2 010 064 06 02	
Cutter diameter eff.	Ød mm	1	1
Number of teeth	z	2	2
Carbide grade		02	Diamond Coated
Cutting conditions			
Cutting speed	V_c m/min	126	126
Revolution	n rpm	40.000	40.000
Feed per tooth	f_z mm	0,013 - 0,015	0,010
Table feed	V_f mm/min	1000 - 1200	800
Depth of cut	a_p mm	0,05	0,05
Width of cut	a_e mm	0,1	0,1
Length of cut	L mm		
Chip removal rate	Q cm^3/min	0,005 - 0,006	0,004
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	28 - 38 Min	40 Min - 1H02Min
Toollife	T_{total} min		
Power consumption	P Kw		
Edge wear	V_b mm		

Remarks

First test is made with semi-finishing application, to get the most material away. Table fees is 1200 mm/min
Finishing with table feed 1000 mm/min.
Time effort is quiet big. Surfacequality is very good according customer.

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