Machining trials



Machine: DMG CTX Gamma 1250 TC Workpiece: C45E Tool: WC-6Co, SPUN120308 NbC_{0.88}-14Co, SPUN120308 NbC_{1.0}-12Ni4Mo4VC, SPUN120308 Process parameters: Cutting speed $v_c = 150.0$ m/min Feed f = 0.1 mm

05

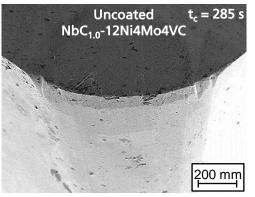
mm

Depth of cut

	Depth of cut $a_p =$				0.5	mm	
■ No coating ■ HIPIMS coating							
1400	+ 344%		+ 3900%		+ 321%		
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Dry cylindrical turning of C45E

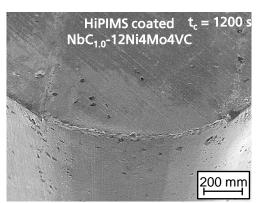
- Comparison of tool performance of uncoated and HiPIMS coated substrates
 - WC-6Co
 - NbC_{0.88}-14Co
 - NbC_{1.0}-12Ni4Mo4VC



SEM image of uncoated NbC_{1.0}-12Ni4Mo4VC [IWF]



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SEM image of HIPIMS coated NbC_{1.0}-12Ni4Mo4VC [IWF]



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