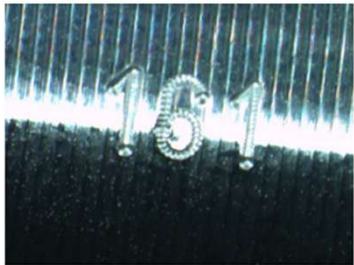


Marking



Reference sheet

gravostar WS-20



Workpiece Description: Material: Workpiece hardness: Surface state:	Code consisting of machine number and processing time 42CrMoS4 29HRC turned surface (rough machined)
Machine data Machine type: Brand/make: Control: Marking software: Coolant pressure:	double spindle machining centre Chiron Bosch Rexroth MTX - 30 bar
Marking data Feed speed: Font size: Number of characters: Marking time: Batch size:	2000 mm/min. 2 mm 3 4,5 seconds incl. tool exchange approx. 320 pieces per spindle, daily

Production volume per year	5000	
Marking with extern laser marking machine		
marking time laser per part (min)	0.04	
hourly rate (EUR/h)	90	
Non-productive time (e.g. parts handling) before and after deburring in (min)	0.35	
Marking cost per part (EUR)	0.59	
Marking with Gravostar		
Investment cost tool (EUR)	3000	
marking time in CNC-machine per part (min)	0.075	
hourly rate (EUR/h)	120	
Non-productive time (e.g. parts handling) before and after deburring in (min)	0	
Marking cost per part (EUR)	0.15	
Payback calculation		
Cost saving per piece (without consider invstement cost), EUR	0.44	-74.36%
Cost saving per year (without consider invstement cost), EUR	2175.00	
Payback in Jahre *	1.38	
* Assumption: Only this workpiece is produced and the tool is not used for other workpieces. Otherwise, the payback period is even shorter.		