

**5**


<b>Centerless grinding machine</b>	Make: Officine Monzese Spa - Model: 510 - wheel speed m/s: 32 (6297 fpm) - rpm: 1200		
<b>Grinding wheel</b>	Specification: <b>ZB</b>	Dimensions mm. 508 x 250 x 254 ( inches 20x10x10 )	
<b>Regulating wheel</b>	Specification: <b>A120V4R</b>	Dimensions mm. 305 x 250 x 127 ( inches 12x10x5 )	
<b>Dressing tool</b>	Diamod tool bit		
<b>Work piece</b>	Shaft for eletric motors		
<b>Material</b>	UNI X30Cr13	DIN 27-68MK	AISI/SAE 420C
<b>Hardness</b>	50-55 Hrc		
<b>Initial dimensions of work piece</b>	Ø mm. 6,20 ( .244" )	Lenght mm. 91,00 ( 3,58" )	
<b>Final dimensions of work piece</b>	Ø mm. 6,00 ( .236" )	Lenght mm. 91,00 ( 3,58" )	
<b>Stock removal</b>	Total mm. 0,20 ( .008" )	Roughing removal	mm. 0,15 ( .006" ) one pass
		Finishing removal	mm. 0,05 ( .002" ) one pass
<b>Feed rate</b>	Roughing	mt/min' 4,0 ( 157 ipm )	
	Finishing	mt/min' 3,5 ( 137 ipm )	
<b>Dimensional tolerances</b>	Straightness	mm. 0,001 ( .000039" )	
	Parallelism	mm. 0,005 ( .00019" )	
	Roundness	mm. 0,001 ( .000039" )	
<b>Surface finish</b>	Ra 0,08	Rt 0,80	Rz 0,68
<b>Dressing cycle</b>	Dressing depth	mm. 0,020	( .0007" )
	Dressing speed	mm. 150/min'	( 5,90"/min )
	Dressing frequency	every 4 hours	
	Reason of the dressing	restore surface and reduce Ra	
<b>Coolant</b>	Water soluble coolant with 7% semi-synthetic oil Ph 8		
<b>Notes</b>	<i>The life of this <b>ZB</b> grinding wheel has been 10 months, working 16 hours a day.</i>		