

15



| | | | |
|---|---|--|---------------|
| Centerless grinding machine | Make: Giustina - Model: R114/500 - wheel speed m/s: 45 (8856 fpm) - rpm: 1400 | | |
| Grinding wheel | Specification: ZB | Dimensions mm. 610 x 508 x 304,8 (inches 21x20x12) | |
| Regulating wheel | Specification: AZ120VRR | Dimensions mm. 305x 355 x 140 (inches 12x14x5,5) | |
| Dressing tool | Diamod tool bit | | |
| Work piece | Shaft for electric motor | | |
| Material | UNI 44SMn28 | DIN | AISI/SAE 1144 |
| Hardness | | | |
| Initial dimensions of work piece | Ø mm. 6,20 (.244") | Lenght mm. 110,00 (4,33") | |
| Final dimensions of work piece | Ø mm. 6,00 (.236") | Lenght mm. 110,00 (4,33") | |
| Stock removal | Total mm. 0,20 (.008") | Roughing/finishing removal mm. 0,20 (.008") one pass | |
| Feed rate | Roughing | mt/min' 6 (238 ipm) | |
| Dimensional tolerances | Straightness | mm. 0,001 (.000039") | |
| | Parallelism | mm. 0,002 (.000028") | |
| | Roundness | mm. 0,008 (.00031") | |
| Surface finish | Ra 0,11 | Rt 1,6 | Rz 0,95 |
| Dressing cycle | Dressing depth | mm. 0,03/0,04 (.0012"/.0015") | |
| | Dressing speed | mm. 480/min' (18,8"/min) | |
| | Dressing frequency | every 8 hours | |
| | Reason of the dressing | restore the roundness and reduce Ra | |
| Coolant | Water soluble coolant with 3% semi-synthetic oil Ph 9 | | |
| | Temperature constant 75°F | | |
| | Filter | mm. 0,004 (.00015") | |
| Notes | <i>The life of this ZB grinding wheel has been 4 months, working 15 hours a day.</i> | | |