

# Prima PLC



compact  
design



customizable  
control



EC Norm  
compliant



management  
operations



mechanical  
resistance



more  
productivity



rubber and  
polymer

Rossini Software allows a communication and data management with the customer's management data system according to the specs of INDUSTRY 4.0 (Italy). PRIMA PLC makes lathing and precision grinding of the external surface, steps, roller/sleeve facing and the automatic wheel adjustment cycle an easy task. The grinding wheels and lathing tool movement on two independent axis and the horizontal moving function is controlled through encoders applied on motors with specific automatic handling software. The PLC allows a seamless work flow operation on the roller/sleeve and has a memory function to recall set parameters for repeat jobs (series production). Standard grinding profiles: Parallel profile (standard), tapered profile, trapezoidal profile, crowned (cambered) surface convex or concave (with specific grinding wheels shapes), stepped shaping, edge trimming.

## structure

- Solid structure in painted steel
- Linear precision guides with a reduced range for working head sliding
- Two independent working heads for roughing and grinding
- Quality mechanical and electronic parts
- 10.4" touch screen panel with customisable software
- Tools developed to guarantee high production yield

## specifications

|                                                                                        |                                                                     |
|----------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Machine colour                                                                         | Red RAL3000 and White RAL9002 Other colours available on request    |
| Length [mm] Prima Mod. 200 - 250 - 300 - 350 - 400                                     | 4.300 - 4.800 - 5.300 - 5.800 - 6.300                               |
| Width [mm]                                                                             | 1.700                                                               |
| Height [mm]                                                                            | 1.650                                                               |
| Weight [Kg] Prima Mod. 200 - 250 - 300 - 350 - 400                                     | 5.000 - 5.500 - 6.000 - 7.000 - 7.500                               |
| Useful distance between the points [mm] Prima Mod.200 - 250 - 300 - 350 - 400          | 2.000 - 2.500 - 3.000 - 3.500 - 4.000                               |
| Maximum table stroke [mm] Prima Mod. 200 - 250 - 300 - 350 - 400                       | 2.000 - 2.500 - 3.000 - 3.500 - 4.000                               |
| Height of points [mm]                                                                  | 450                                                                 |
| Maximum diameter of the rotating piece [mm]                                            | 400                                                                 |
| Maximum diameter of the piece to grind [mm]                                            | 350                                                                 |
| Maximum weight of the piece assembled between the points [Kg]                          | 350                                                                 |
| Piece rotation speed [RPM]                                                             | 0 - 500                                                             |
| Grinding wheel mandrel rotation speed [RPM]                                            | 1.650                                                               |
| Tailstock Taper Cut                                                                    | Morse 5                                                             |
| Grinding wheel advancement range [mm]                                                  | 0 - 200                                                             |
| Undercutting tool advancement range [mm]                                               | 0 - 200                                                             |
| Grinding wheel advancement hand-wheel minimum resolution for manual command [mm]       | 0,001                                                               |
| Abrasive grinding wheel drive                                                          | 4 kW AC 3Ph                                                         |
| Piece holder rotating head drive                                                       | Brushless 25 [Nm]                                                   |
| Drives: movement of the head-support trolley/ movement of the grinding wheel/tool axes | 3 x Brushless 8,4 [Nm]                                              |
| Accessories included                                                                   | 1 Lathe carrier per type D.35-D.50-D.80-D.110 [mm] - Total 4 Pieces |

|                           |                                                                                                                                                                                                                                                    |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                           | 1 Abrasive grinding wheel 400x127x40 [mm] with flange, shaft for grinding wheel balancing                                                                                                                                                          |
|                           | 1 Round knife tool for roughing and tool-holder                                                                                                                                                                                                    |
|                           | 1 Tool for abrasive grinding wheel dressing and tool-holder                                                                                                                                                                                        |
|                           | 1 Fixed tailstock - 1 rotating tailstock                                                                                                                                                                                                           |
| <b>Optional equipment</b> | Manual equipment for static balancing of the abrasive grinding wheels                                                                                                                                                                              |
|                           | Bellows in special rubber-coated, oil-proof cover for the linear guides                                                                                                                                                                            |
|                           | Manual, four-position, rotating tool-holder tower                                                                                                                                                                                                  |
|                           | Configuration for working with water (to order with the machine and not retrofittable); includes a single action purification system with filtration belt in non-woven fabric, bellows in special, rubber-coated, oil-proof cover for the guides I |
|                           | Internet connection module for remote support                                                                                                                                                                                                      |

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