

# UNIVERSAL GRINDER RUP-280



Universal grinder for rollers RUP-280 is appropriate for grinding internal and external rotary surfaces and also for grinding flat fronts of different workpieces and flanges.

It is characterized by:

-higher speed of grinding up to 45m/s

-high reliability and durability because of hydrostatic spindle bearings and hydrostatic guides

Characteristics of RUP-280 grinding machine in the range of geometrical parameters:

-roughness  $Ra \le 0,16 \,\mu\,m$ 

-rotating 0,0015mm

- -rolling 0,005mm / 500mm
- -repeatability of diameter grinding ≤0,005mm

# **TECHNICAL DATA**

| Max. grinding length   | mm                 | 500 or 1000                          |
|--|--------------------|--------------------------------------|
| Max. grinding speed  | m/s                | 45                                   |
| Max. external grinding diameter  | mm                 | 280                                  |
| Max. workpiece weight in centres   | kg                 | 125                                  |
| Max. workpiece weight in chuck   | kg                 | 20                                   |
| WHEELHEAD  |                    |                                      |
| Grinding wheel diameter max./min.  | mm                 | 400 / 260                            |
| Swivel angle towards tailstock/workhead  | degrees            | ±30°                                 |
| Total travel with manual drive   | mm                 | 160                                  |
| Additional travel of slide plate   | mm                 | 60                                   |
| Hydraulic rapid travel   | mm                 | 50                                   |
| Approach feed per one handwheel revolution                                     | mm                 | 1                                    |
| Approach feed per one minimum graduation<br>on the handwheel                   | mm                 | 0,0025                               |
| Automatic approach feed per one graduation<br>on the micro-corrector handwheel | mm                 | 0,0005                               |
| In-feed ranges: - rough  | m/min              | 0,3 - 6,0                            |
| - finishing  | m/min              | 0,08 - 3,0                           |
| Grinding wheel width   | mm                 | 50                                   |
| Grinding wheel bore diameter   | mm                 | 127                                  |
| Automatic approach feed range at the table reversal                            | mm/stroke          | 0,0025 - 0,04                        |
| WORKHEAD   |                    |                                      |
| Swivel angle towards the operator/opposite                                     | degrees            | 30 / 90                              |
| Workpiece spindle taper  | Morse              | No 4                                 |
| Workpiece spindle through bore diameter  | mm                 | 22                                   |
| Spindle stepless speed range (option)  | rpm                | 25 ÷ 500                             |
| INTERNAL GRINDING (attachment included in special equipment)                   |                    |                                      |
| Max. ground bore diameter  | mm                 | 200                                  |
| Max. grinding length   | mm                 | 120                                  |
| Spindle speed range:<br>a) SLA 40x250<br>b) SLA 70x250                         | rpm<br>rpm         | 10000/15000/30000<br>5700/8560/17120 |
| TABLE  |                    |                                      |
| Swivel angle towards wheelhead/operator for:                                   |                    |                                      |
| L= 500<br>L=1000   | degrees<br>degrees | 7 /5<br>4°/3°                        |
| Table speed feed range   | mm/min             | 75 - 4000                            |
| Min. hydraulic table travel speed  | mm                 | 3                                    |
| TAILSTOCK  |                    |                                      |
| Max. spindle projection  | mm                 | 25                                   |
| Tailstock spindle taper: manual/hydraulic                                      | Morse              | No 2 / No 4                          |
| WEIGHT   |                    |                                      |
| Weight<br>L= 500   | ka                 | 2600                                 |
| L= 500<br>L=1000   | kg<br>kg           | 2800                                 |
| Max. power   | KW                 | 10,5                                 |
| Overall dimension L x W x H for grinding length 500                            | mm                 | 2290x2000x1800                       |
| Overall dimension L x W x H for grinding length 1000                           | mm                 | 3620x2000x1800                       |
|  |                    |                                      |

## STANDARD EQUIPMENT

- 1. Table type dressing device without diamond
- 2. Precise table turn sensor device
- 3. Grinding wheel holder
- 4. Grinding wheel puller
- 5. Workhead dead centres Morse tapper 4: special with nut: PZKa-4
- 6. Hydraulic tailstock
- 7. Set of service spanners
- 8. Tailstock dead centres Morse tapper 4: special: PZKa-4: PZKf-4
- 9. Backing plate for wheelhead blockade
- 10. Fasting brackets for table blockade
- 11. Stand for leveling
- 12. Internal grinding attachment, spindle
- 13. Wiring system with engines for 220/380V 50Hz
- 14. User operation manual

#### **OPTIONAL EQUIPMENT** (available at additional cost)

- 1. Hard buffer with sensor
- 2. Base for grinding wheel static balancing
- 3. Mandrel with nut for static wheel balancing
- 4. Face plate Ø 200 with T-slots
- 5. 3-jaw chuck Ø 200
- 6. 2-point rest
- 7. 3-point rest 8. Radial dressing attachment
- 9. Radial and angle dressing attachment 10.Grinding wheel diamond turning device
- with micrometric travel fitted on tailstock 11. Grinding wheel diamond turning device for internal grinding
- 12. Grinding wheel diamond turning device with micrometric travel, fitted on table
- 13. Manually operated tailstock
- 14. Grinding wheel holder
- 15. Diamond grinding wheel dresser
- 16. Grinding wheel 400 x 50 x 127 (99A 60K)
- 17. Optoelectronic linear scale for X axis, with resolution of 0,001mm
- and +/-0.002mm tolerance 18. Digital readout with two optoelectronic
- linear scales (L=500) for X and Z axis. 19. Digital readout with two optoelectronic
- linear scales (L=1000) for X and Z axis. 20. Internal grinding attachment Ø 40x250
- with wheels 21. Internal grinding attachment Ø 70x250 with wheels
- 22. Stand for parts supporting during removal and reinstallation
- 23. Device for dynamic balancing of grinding wheel (during operation)
- 24. Adaptation of the machine for max. grinding outer diameter Ø 320mm.
- 25. Start-up and training within machine operation at customer site 1 day + traveling costs
- 26. Machine transportation to the customer (counted both ways)

Attention:

Some components from standard and special equipment are mounted for delivery on the machine.

We reserve all rights to bring changes without notifying.



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