

| Parameters   | CYLINDRICAL GRINDING MACHINES TYPE |   |   |   |  |
|--|------------------------------------|---|---|---|--|
|  | Units                              | BHC / BHC HD<br>Design version  | BHCR / BHCR HD  | BUC E   | BUB E                                      |
| <b>Working range</b>   |                                    |   |   |   |  |
| Swing diameter   | mm (in)                            | 630 (24,8) / 850 (33,5) / 1000 (39,2)   | 630 (24,8) / 850 (33,5) / 1000 (39,2)   | 630 (24,8) / 850 (33,5)                                       | 320 (12,6) / 400 (15,7) / 500 (19,7)       |
| Distance between centers   | mm (in)                            | 2000 (78,7) / 3000 (118,1) / 4000 (157,5) / 5000 (196,8) / 6000 (236,2)       | 2000 (78,7) / 3000 (118,1) / 4000 (157,5) / 5000 (196,8) / 6000 (236,2)       | 2000 (78,7) / 3000 (118,1) / 4000 (157,5) / 5000 (196,8)      | 1000 (39,4) / 1500 (59) / 2000 (78,7)      |
| Max. weight of workpiece - between centers   | kg (lb)                            | 4000 (8800)   | 4000 (8800)   | 3000 (6600)   | 500 (1100)                                 |
| Max. weight of workpiece - between centers - heavy duty  | kg (lb)                            | 5000 (11000)  | 5000 (11000)  |   |  |
| Max. weight of workpiece-with live spindle (incl. clamp)   | kg (lb)                            | 300 (660)   | 300 (660)   | 300 (660)   | 80   |
| <b>Grinding unit – Axis X</b>  |                                    |   |   |   |  |
| Minimum programmable in-feed   | mm (in)                            | 0,0005 (0,00002)  | 0,0005 (0,00002)  | 0,0005 (0,00002)  | 0,0005 (0,00002)                           |
| Maximum speed  | m.min-1 (in/min)                   | 10 (393,7)  | 10 (393,7)  | 10 (393,7)  | 8 (314,9)                                  |
| <b>Table – Axis Z</b>  |                                    |   |   |   |  |
| Minimum programmable table feed  | mm (in)                            | 0,001 (0,00004)   | 0,001 (0,00004)   | 0,001 (0,00004)   | 0,001 (0,00004)                            |
| Maximum speed  | m.min-1 (in/min)                   | 10 (393,7)  | 10 (393,7)  | 10 (393,7)  | 8 (314,9)                                  |
| <b>Grinding Wheel head</b>   |                                    |   |   |   |  |
| Grinding wheel dimensions (dia. x width x bore)  | mm (in)                            | Ø 750 x 100 x Ø 305 (Ø 29,5 x 3,9 x Ø 12)                                     | Ø 750 x 100 x Ø 305 (Ø 29,5 x 3,9 x Ø 12)                                     | Ø 750 x 100 x Ø 305 (Ø 29,5 x 3,9 x Ø 12)                     | Ø 500 x 80 x Ø 203 (Ø 19,7 x 3,1 x Ø 8)    |
| Diameter of worn-out wheel   | mm (in)                            | Ø 570 (Ø 22,4)  | Ø 570 (Ø 22,4)  | Ø 570 (Ø 22,4)  |  |
| Maximum grinding wheel width   | mm (in)                            | 125 (4,92)  | 125 (4,92)  | 125 (4,92)  |  |
| Grinding wheel peripheral speed  | m/s                                | 10 a 50   | 10 a 50   | 25 - 45 (10 - 50 option)                                      | 25 - 45 (10 - 50 option)                   |
| Wheel head swivel  | °                                  | +30/-30   | +45/-225  | +30/-10   | +45/-15                                    |
| Wheel head motor power   | kW (hp)                            | 18,5  | 18,5 (25)   | 18,5  | 11 (14,85)                                 |
| <b>Work head</b>   |                                    |   |   |   |  |
| Work head swivel   | °                                  | 0 a 90  | 0 a 90  | 0 a 90  |  |
| Work head swivel – heavy duty  | °                                  | 0   | 0   |   |  |
| Work head spindle taper bore   | -                                  | Morse 6 ISO 296-1991  | Morse 6 ISO 296-1991  | Morse 6 ISO 296-1991  |  |
| Work head spindle nose   | -                                  | A 2-6 ISO 702-1-1992  | A 2-6 ISO 702-1-1992  | A 2-6 ISO 702-1-1992  |  |
| <b>Tailstock</b>   |                                    |   |   |   |  |
| Tailstock barrel taper bore  | -                                  | Morse 6 ISO 296-1991  | Morse 6 ISO 296-1991  | Morse 6 ISO 296-1991  |  |
| Tailstock barrel stroke  | mm (in)                            | 70 (3,1)  | 70 (3,1)  | 80 (3,1)  |  |
| Cross motion of tailstock center– cylindrical correction   | mm (in)                            | ±0,8 (0,031)  | ±0,8 (0,031)  | ±0,8 (0,031)  |  |
| Tailstock clamping force   | N                                  | 300-12000   | 300-12000   | 300-12000   |  |
| <b>Other specifications</b>  |                                    |   |   |   |  |
| Length of machine  | mm (in)                            | 7600 (300) / 9700 (383) / 12310 (486) / 14800 (584) / 17500 (691)             | 7600 (300) / 9700 (383) / 12310 (486) / 14800 (584) / 17500 (691)             | 7626 (300) / 9626 (380) / 11916 (470) / 13916 (548)           | 5500 (216,5) / 6700 (263,8) / 7800 (307,1) |
| Width of machine   | mm (in)                            | 4350 (171,3)  | 4350 (171,3)  | 4350 (171,3)  | 3400 (133,8)                               |
| Height of machine  | mm (in)                            | 2888 (113,7)  | 2888 (113,7)  | 2888 (113,7)  | 1950 (76,8)                                |
| Weight of machine  | kg (lb)                            | 15800 (34760) / 17500 (38500) / 18500 (40700) / 20500 (45100) / 22500 (49500) | 16900 (37260) / 18900 (41667) / 21500 (47400) / 23500 (51810) / 26500 (58425) | 13000 (28600) / 15000 (33000) / 17100 (37620) / 18800 (41360) | 7000 (15400), 7850 (17270), 8900 (19580)   |
| Control system   | -                                  | Siemens 840D sl   | B&R   | Siemens 840D sl   | B&R  |
| Drives   | -                                  | Sinamics  |   | Sinamics  |  |
| Ball screws  | -                                  | KSK Kuřim   | Shuton  | KSK Kuřim   | Shuton                                     |
| Cooling and filtration   | -                                  | Astos Ař  |   | Astos Ař  |  |
| Lubrication  | -                                  | Tribotec  |   | Tribotec  |  |
| Pneumatic equipment  | -                                  | FESTO   |   | FESTO   |  |
| <b>Machine working accuracy according to ISO 2433 (depending on grinding materials and machining technology)</b> |                                    |   |   |   |  |
| Machine working accuracy (without in-process gauge)  | -                                  | IT 4  |   | IT 4  |  |
| Surface roughness - Ra   | -                                  | 0,2 (0,05)  |   | 0,2 (0,05)  |  |
| Roundness of workpiece   | mm                                 | 0,002   |   | 0,002   |  |