

RLK 200 Cone Clamping Elements

easy to release
compact design

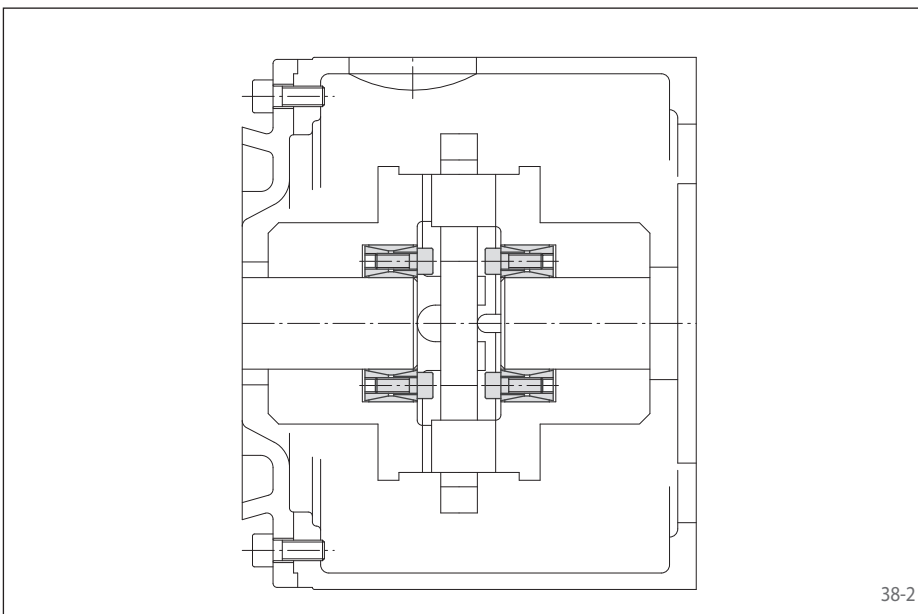
Morskate®



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Features

- Easy to release
- Compact design
- No axial displacement between hub and shaft during clamping procedure
- Extended tolerances for hub and shaft
- For shaft diameters between 20 mm and 400 mm



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Application example

Backlash free connection of the two hubs of a Flexible Coupling L 42 from RINGSPANN with a Cone Clamping Element RLK 200. The Flexible Coupling is situated in the latern of a geared motor driving a roller conveyor.

Transmissible torques and axial forces

The transmissible torques or axial forces listed on page 39 are subject to the following tolerances, surface characteristics and material requirements. Please contact us in the case of deviations.

Tolerances

- h9 for shaft diameter d
- H9 for hub bore D

Surfaces

Average surface roughness at the contact surfaces between the shaft and the hub bore:
 $R_a \leq 3,2 \mu\text{m}$.

Materials

The following apply to the shaft and the hub:

- E-module ca. 170 kN/mm^2

Installation

Please request our installation and operating instructions for Cone Clamping Elements RLK 200.

Simultaneous transmission of torque and axial force

The transmissible torques M which are shown in the tables apply for axial forces $F = 0 \text{ kN}$ and conversely, the indicated axial forces F apply to torques $M = 0 \text{ Nm}$. If torque and axial force are to be transmitted simultaneously, the transmissible torque and the transmissible axial force are reduced. Please refer to the technical points on pages 54 and 55.

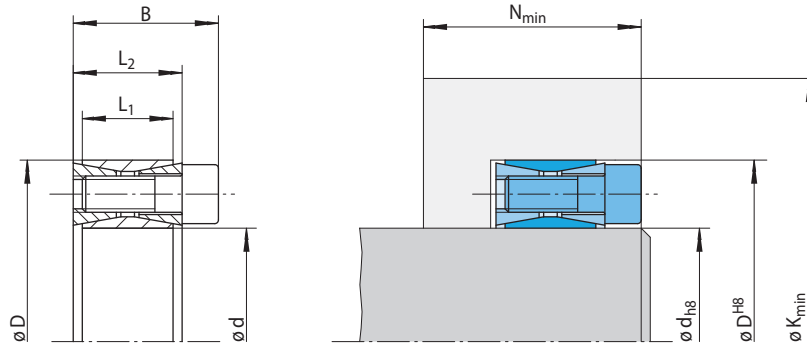
Example for ordering

Cone Clamping Element RLK 200 for shaft diameter $d = 100 \text{ mm}$:

- RLK 200, size 100 x 145
Article number 4201.100.001.000000

RLK 200 Cone Clamping Elements

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| Size | | Dimensions | | | | | | | | | | Technical Data | | | | | | | | | | Article number |
|---------|---------|------------|----------------------|----------------------|---|-----|-----|-----|-----|-----|---|----------------|--|--|--|-------------|------|--------------|------|---------------------|--|----------------|
| d mm | D mm | B mm | L ₁ mm | L ₂ mm | Yield strength R _e of the hub material [N/mm ²] | | | | | | Transmissible torque or axial force | | Contact pressure at | | Clamping screws | | | Weight kg | | | | |
| | | | | | 200 | | 320 | | 500 | | M | F | Shaft P _W N/mm ² | Hub P _N N/mm ² | Tightening torque M _S Nm | Num- ber | Size | | | Length mm | | |
| 20 | 47 | 26 | 17 | 20 | 83 | 43 | 70 | 36 | 62 | 32 | 273 | 27 | 240 | 102 | 16 | 8 | M6 | 18 | 0,2 | 4201.020.001.000000 | | |
| 22 | 47 | 26 | 17 | 20 | 83 | 43 | 70 | 36 | 62 | 32 | 300 | 27 | 218 | 102 | 16 | 8 | M6 | 18 | 0,2 | 4201.022.001.000000 | | |
| 24 | 50 | 26 | 17 | 20 | 85 | 42 | 73 | 36 | 65 | 32 | 330 | 28 | 200 | 96 | 16 | 8 | M6 | 18 | 0,3 | 4201.024.001.000000 | | |
| 25 | 50 | 26 | 17 | 20 | 85 | 42 | 73 | 36 | 65 | 32 | 340 | 27 | 192 | 96 | 16 | 8 | M6 | 18 | 0,3 | 4201.025.001.000000 | | |
| 28 | 55 | 26 | 17 | 20 | 104 | 49 | 87 | 41 | 77 | 36 | 570 | 41 | 257 | 131 | 16 | 12 | M6 | 18 | 0,3 | 4201.028.001.000000 | | |
| 30 | 55 | 26 | 17 | 20 | 104 | 49 | 87 | 41 | 77 | 36 | 610 | 41 | 240 | 131 | 16 | 12 | M6 | 18 | 0,3 | 4201.030.001.000000 | | |
| 32 | 60 | 26 | 17 | 20 | 107 | 48 | 92 | 41 | 81 | 35 | 660 | 41 | 225 | 120 | 16 | 12 | M6 | 18 | 0,3 | 4201.032.001.000000 | | |
| 35 | 60 | 26 | 17 | 20 | 107 | 48 | 92 | 41 | 81 | 35 | 720 | 41 | 205 | 120 | 16 | 12 | M6 | 18 | 0,3 | 4201.035.001.000000 | | |
| 38 | 65 | 26 | 17 | 20 | 121 | 53 | 103 | 44 | 91 | 38 | 970 | 51 | 236 | 138 | 16 | 15 | M6 | 18 | 0,4 | 4201.038.001.000000 | | |
| 40 | 65 | 26 | 17 | 20 | 121 | 53 | 103 | 44 | 91 | 38 | 1000 | 50 | 225 | 138 | 16 | 15 | M6 | 18 | 0,4 | 4201.040.001.000000 | | |
| 42 | 75 | 32 | 20 | 24 | 143 | 64 | 120 | 53 | 106 | 46 | 1580 | 75 | 264 | 148 | 38 | 12 | M8 | 22 | 0,6 | 4201.042.001.000000 | | |
| 45 | 75 | 32 | 20 | 24 | 143 | 64 | 120 | 53 | 106 | 46 | 1700 | 76 | 246 | 148 | 38 | 12 | M8 | 22 | 0,5 | 4201.045.001.000000 | | |
| 48 | 80 | 32 | 20 | 24 | 147 | 64 | 125 | 53 | 110 | 45 | 1800 | 75 | 231 | 139 | 38 | 12 | M8 | 22 | 0,6 | 4201.048.001.000000 | | |
| 50 | 80 | 32 | 20 | 24 | 147 | 64 | 125 | 53 | 110 | 45 | 1890 | 76 | 222 | 139 | 38 | 12 | M8 | 22 | 0,6 | 4201.050.001.000000 | | |
| 55 | 85 | 32 | 20 | 24 | 164 | 70 | 138 | 57 | 121 | 48 | 2600 | 95 | 252 | 163 | 38 | 15 | M8 | 22 | 0,6 | 4201.055.001.000000 | | |
| 60 | 90 | 32 | 20 | 24 | 167 | 69 | 142 | 56 | 126 | 48 | 2800 | 93 | 231 | 154 | 38 | 15 | M8 | 22 | 0,7 | 4201.060.001.000000 | | |
| 65 | 95 | 32 | 20 | 24 | 171 | 68 | 147 | 56 | 131 | 48 | 3050 | 94 | 213 | 146 | 38 | 15 | M8 | 22 | 0,8 | 4201.065.001.000000 | | |
| 70 | 110 | 38 | 24 | 28 | 211 | 87 | 179 | 71 | 157 | 60 | 5300 | 151 | 270 | 172 | 75 | 15 | M10 | 25 | 1,3 | 4201.070.001.000000 | | |
| 75 | 115 | 38 | 24 | 28 | 215 | 86 | 183 | 70 | 162 | 60 | 5600 | 149 | 252 | 164 | 75 | 15 | M10 | 25 | 1,2 | 4201.075.001.000000 | | |
| 80 | 120 | 38 | 24 | 28 | 219 | 86 | 187 | 70 | 167 | 60 | 6000 | 150 | 236 | 157 | 75 | 15 | M10 | 25 | 1,4 | 4201.080.001.000000 | | |
| 85 | 125 | 38 | 24 | 28 | 223 | 85 | 192 | 70 | 171 | 59 | 6400 | 151 | 222 | 151 | 75 | 15 | M10 | 25 | 1,4 | 4201.085.001.000000 | | |
| 90 | 130 | 38 | 24 | 28 | 227 | 85 | 196 | 69 | 176 | 59 | 6800 | 151 | 210 | 145 | 75 | 15 | M10 | 25 | 1,5 | 4201.090.001.000000 | | |
| 95 | 135 | 38 | 24 | 28 | 246 | 92 | 211 | 74 | 188 | 63 | 8600 | 181 | 239 | 168 | 75 | 18 | M10 | 25 | 1,6 | 4201.095.001.000000 | | |
| 100 | 145 | 44 | 26 | 32 | 266 | 102 | 228 | 83 | 203 | 70 | 11000 | 220 | 257 | 177 | 130 | 15 | M12 | 30 | 2,2 | 4201.100.001.000000 | | |
| 110 | 155 | 44 | 26 | 32 | 274 | 101 | 237 | 82 | 212 | 70 | 12000 | 218 | 234 | 166 | 130 | 15 | M12 | 30 | 2,3 | 4201.110.001.000000 | | |
| 120 | 165 | 44 | 26 | 32 | 288 | 103 | 250 | 84 | 225 | 71 | 14000 | 233 | 228 | 166 | 130 | 16 | M12 | 30 | 2,4 | 4201.120.001.000000 | | |
| 130 | 180 | 50 | 34 | 38 | 317 | 117 | 274 | 95 | 245 | 81 | 19000 | 292 | 202 | 146 | 130 | 20 | M12 | 35 | 3,5 | 4201.130.001.000000 | | |
| 140 | 190 | 50 | 34 | 38 | 335 | 121 | 290 | 98 | 260 | 83 | 22000 | 314 | 206 | 152 | 130 | 22 | M12 | 35 | 3,8 | 4201.140.001.000000 | | |
| 150 | 200 | 50 | 34 | 38 | 353 | 125 | 306 | 101 | 274 | 85 | 26000 | 346 | 210 | 157 | 130 | 24 | M12 | 35 | 4,0 | 4201.150.001.000000 | | |
| 160 | 210 | 50 | 34 | 38 | 371 | 129 | 322 | 104 | 289 | 88 | 30000 | 375 | 213 | 162 | 130 | 26 | M12 | 35 | 4,4 | 4201.160.001.000000 | | |
| 170 | 225 | 58 | 38 | 44 | 396 | 141 | 343 | 114 | 308 | 97 | 35400 | 416 | 207 | 156 | 200 | 22 | M14 | 40 | 5,7 | 4201.170.001.000000 | | |
| 180 | 235 | 58 | 38 | 44 | 416 | 146 | 361 | 118 | 323 | 99 | 40900 | 454 | 213 | 163 | 200 | 24 | M14 | 40 | 6,0 | 4201.180.001.000000 | | |
| 190 | 250 | 66 | 46 | 52 | 443 | 160 | 383 | 130 | 343 | 110 | 50300 | 529 | 195 | 148 | 200 | 28 | M14 | 45 | 8,0 | 4201.190.001.000000 | | |
| 200 | 260 | 66 | 46 | 52 | 461 | 164 | 399 | 133 | 358 | 112 | 56700 | 567 | 198 | 153 | 200 | 30 | M14 | 45 | 8,2 | 4201.200.001.000000 | | |
| 220 | 285 | 72 | 50 | 56 | 504 | 179 | 436 | 145 | 391 | 122 | 72000 | 655 | 199 | 154 | 300 | 26 | M16 | 50 | 11,0 | 4201.220.001.000000 | | |
| 240 | 305 | 72 | 50 | 56 | 545 | 189 | 472 | 153 | 423 | 128 | 90800 | 757 | 211 | 166 | 300 | 30 | M16 | 50 | 12,2 | 4201.240.001.000000 | | |
| 260 | 325 | 72 | 50 | 56 | 585 | 199 | 506 | 160 | 453 | 133 | 108500 | 835 | 221 | 177 | 300 | 34 | M16 | 50 | 13,2 | 4201.260.001.000000 | | |
| 280 | 355 | 84 | 60 | 66 | 625 | 216 | 542 | 175 | 487 | 147 | 137000 | 979 | 192 | 151 | 410 | 32 | M18 | 60 | 19,2 | 4201.280.001.000000 | | |
| 300 | 375 | 84 | 60 | 66 | 666 | 227 | 578 | 183 | 518 | 153 | 165000 | 1100 | 201 | 161 | 410 | 36 | M18 | 60 | 20,5 | 4201.300.001.000000 | | |
| 320 | 405 | 98 | 72 | 78 | 736 | 261 | 635 | 210 | 566 | 176 | 229000 | 1430 | 202 | 160 | 590 | 36 | M20 | 70 | 29,6 | 4201.320.001.000000 | | |
| 340 | 425 | 98 | 72 | 78 | 752 | 259 | 652 | 209 | 585 | 175 | 243000 | 1430 | 190 | 152 | 590 | 36 | M20 | 70 | 31,1 | 4201.340.001.000000 | | |
| 360 | 455 | 112 | 84 | 90 | 821 | 292 | 708 | 236 | 633 | 198 | 320000 | 1770 | 191 | 151 | 790 | 36 | M22 | 80 | 42,2 | 4201.360.001.000000 | | |
| 380 | 475 | 112 | 84 | 90 | 836 | 290 | 726 | 235 | 651 | 197 | 337000 | 1770 | 181 | 145 | 790 | 36 | M22 | 80 | 44,0 | 4201.380.001.000000 | | |
| 400 | 495 | 112 | 84 | 90 | 853 | 288 | 744 | 234 | 670 | 197 | 355000 | 1770 | 172 | 139 | 790 | 36 | M22 | 80 | 46,0 | 4201.400.001.000000 | | |