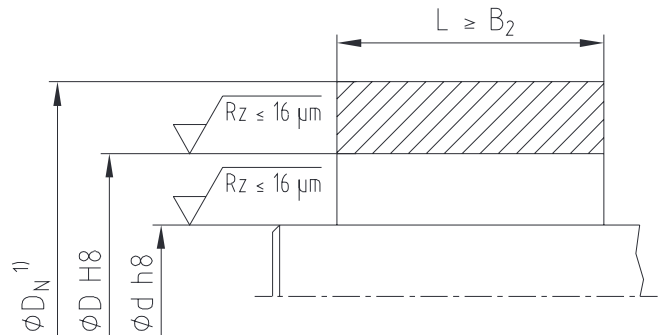
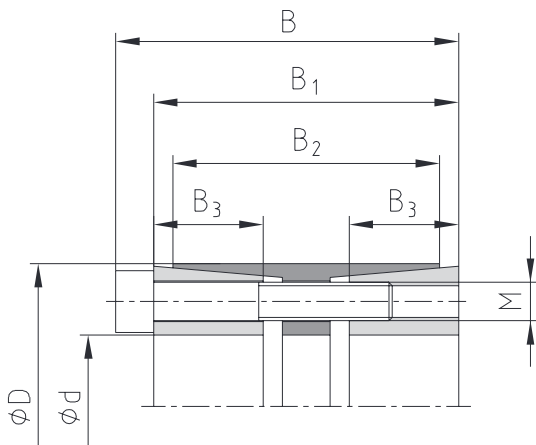
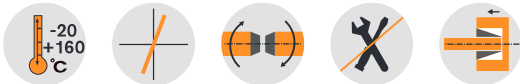


CLAMPEX® KTR 400 Spannelemente

Selbstzentrierendes Spannelement mit den höchsten Übertragungsleistungen

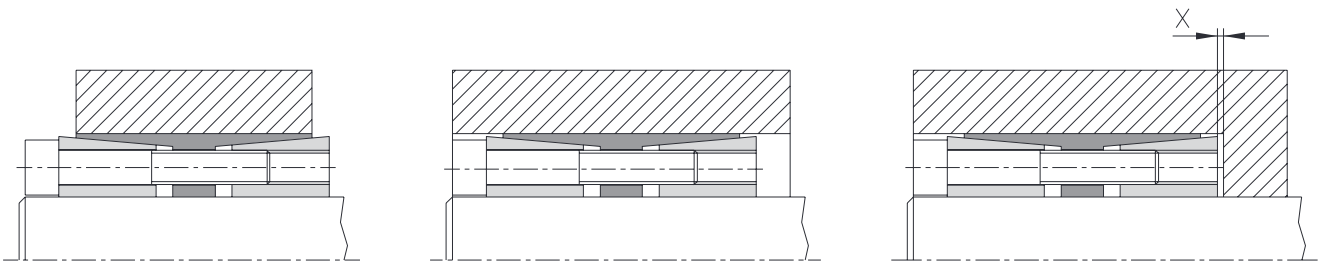


Piktogrammlegende ist auf dem Klapper am Umschlag zu finden



¹⁾ Maß D_N : Berechnung siehe Seite 282 - 285.

Anwendungsbeispiel Nabenform



Formel zur Berechnung des Freiraumes x für die Demontage:

$$x = \frac{B_1 - B_2}{2}$$

| | | | | |
|-----------------------|----------|--------------------------|---|--------------------------|
| Bestell- beispiel: | KTR 400 | 100 | x | 145 |
| | Baureihe | Größe Innendurchmesser d | | Größe Außendurchmesser D |

CLAMPEX® – KTR 400

| d x D ¹⁾ [mm] | Abmessungen [mm] | | | | Industrie-Standardansätze | | | | | | | | Einsätze mit biege- und torsionsbeanspruchten Bauteilen | | | | | | | | Gewicht [~kg] | Lagerprogramm | |
|-----------------------------|------------------|----------------|----------------|----------------|--|---------------|-------|--------------------------------------|--|-------------------------|---|--|--|---------------|-------|------------------------|--|-------------------------|--|---|---------------|---------------|--|
| | | | | | Spannschrauben DIN EN ISO 4762 - 12.9 μ _{ges} =0,14 | | | | Übertragbares Drehmoment oder Axialkraft | | Flächenpressung zwischen Spannelement | | Spannschrauben DIN EN ISO 4762 - 12.9 μ _{ges} =0,14 | | | | Übertragbares Drehmoment oder Axialkraft | | Übertrag- bares Biege- moment | | | | Flächenpressung zwischen Spannelement |
| | B | B ₁ | B ₂ | B ₃ | M | z = Anzahl | Länge | T _A ²⁾ [Nm] | T [Nm] | F _{ax} [kN] | Welle P _W [N/mm ²] | Nabe P _N [N/mm ²] | M | z = Anzahl | Länge | T _A [Nm] | T [Nm] | F _{ax} [kN] | M _B zul. [Nm] | Welle P _W [N/mm ²] | | | Nabe P _N [N/mm ²] |
| 24 x 50 | 51 | 45 | 41 | 16 | M6 | 6 | 35 | 17 | 700 | 58 | 202 | 92 | M6 | 6 | 35 | 14 | 460 | 38 | 420 | 230 | 93 | 0,5 | ● |
| 25 x 50 | 51 | 45 | 41 | 16 | M6 | 6 | 35 | 17 | 730 | 58 | 194 | 92 | M6 | 6 | 35 | 14 | 470 | 38 | 430 | 222 | 94 | 0,5 | ● |
| 28 x 55 | 51 | 45 | 41 | 16 | M6 | 8 | 35 | 17 | 1100 | 79 | 233 | 112 | M6 | 8 | 35 | 14 | 740 | 53 | 490 | 257 | 110 | 0,5 | ● |
| 30 x 55 | 51 | 45 | 41 | 16 | M6 | 8 | 35 | 17 | 1180 | 79 | 217 | 112 | M6 | 8 | 35 | 14 | 790 | 53 | 520 | 243 | 112 | 0,5 | ● |
| 32 x 60 | 51 | 45 | 41 | 16 | M6 | 8 | 35 | 17 | 1270 | 79 | 206 | 103 | M6 | 8 | 35 | 14 | 830 | 52 | 560 | 230 | 104 | 0,8 | ● |
| 35 x 60 | 51 | 45 | 41 | 16 | M6 | 8 | 35 | 17 | 1390 | 79 | 188 | 104 | M6 | 8 | 35 | 14 | 890 | 51 | 610 | 214 | 106 | 0,7 | ● |
| 38 x 65 | 51 | 45 | 41 | 16 | M6 | 10 | 35 | 17 | 1880 | 99 | 216 | 119 | M6 | 10 | 35 | 14 | 1250 | 66 | 660 | 240 | 119 | 1,1 | ● |
| 40 x 65 | 51 | 45 | 41 | 16 | M6 | 10 | 35 | 17 | 1980 | 99 | 205 | 119 | M6 | 10 | 35 | 14 | 1300 | 65 | 700 | 230 | 120 | 1,1 | ● |
| 40 x 75 | 51 | 45 | 41 | 16 | M8 | 8 | 35 | 41 | 2850 | 143 | 296 | 149 | M8 | 8 | 35 | 35 | 2030 | 102 | 700 | 320 | 142 | 1,1 | ● |
| 42 x 75 | 51 | 45 | 41 | 16 | M8 | 8 | 35 | 41 | 3000 | 143 | 282 | 149 | M8 | 8 | 35 | 35 | 2120 | 101 | 730 | 307 | 142 | 1,2 | ● |
| 45 x 75 | 51 | 45 | 41 | 16 | M8 | 8 | 35 | 41 | 3250 | 144 | 266 | 151 | M8 | 8 | 35 | 35 | 2260 | 100 | 780 | 289 | 145 | 1,1 | ● |
| 48 x 80 | 70 | 62 | 58 | 23 | M8 | 8 | 55 | 41 | 3450 | 144 | 173 | 98 | M8 | 8 | 55 | 35 | 2160 | 90 | 1700 | 202 | 101 | 1,5 | ● |
| 50 x 80 | 70 | 62 | 58 | 23 | M8 | 8 | 55 | 41 | 3600 | 144 | 166 | 98 | M8 | 8 | 55 | 35 | 2220 | 89 | 1770 | 196 | 102 | 1,4 | ● |
| 55 x 85 | 70 | 62 | 58 | 23 | M8 | 8 | 55 | 41 | 3950 | 144 | 151 | 92 | M8 | 8 | 55 | 35 | 2350 | 85 | 1950 | 182 | 98 | 1,5 | ● |
| 60 x 90 | 70 | 62 | 58 | 23 | M8 | 10 | 55 | 41 | 5400 | 180 | 173 | 109 | M8 | 10 | 55 | 35 | 3380 | 113 | 2130 | 202 | 113 | 1,6 | ● |
| 65 x 95 | 70 | 62 | 58 | 23 | M8 | 10 | 55 | 41 | 5850 | 180 | 160 | 103 | M8 | 10 | 55 | 35 | 3560 | 110 | 2310 | 190 | 109 | 1,7 | ● |
| 70 x 110 | 86 | 76 | 70 | 28 | M10 | 10 | 60 | 83 | 10200 | 291 | 197 | 118 | M10 | 10 | 60 | 69 | 6620 | 189 | 3650 | 222 | 120 | 3,1 | ● |
| 75 x 115 | 86 | 76 | 70 | 28 | M10 | 10 | 60 | 83 | 10950 | 292 | 184 | 113 | M10 | 10 | 60 | 69 | 6970 | 186 | 3920 | 210 | 117 | 3,3 | ● |
| 80 x 120 | 86 | 76 | 70 | 28 | M10 | 12 | 60 | 83 | 14000 | 350 | 207 | 130 | M10 | 12 | 60 | 69 | 9210 | 230 | 4180 | 231 | 131 | 3,5 | ● |
| 85 x 125 | 86 | 76 | 70 | 28 | M10 | 12 | 60 | 83 | 15000 | 353 | 197 | 126 | M10 | 12 | 60 | 69 | 9710 | 228 | 4440 | 220 | 129 | 3,6 | ● |
| 90 x 130 | 86 | 76 | 70 | 28 | M10 | 12 | 60 | 83 | 15800 | 351 | 185 | 121 | M10 | 12 | 60 | 69 | 10000 | 222 | 4700 | 210 | 124 | 3,8 | ● |
| 95 x 135 | 86 | 76 | 70 | 28 | M10 | 12 | 60 | 83 | 16800 | 354 | 176 | 117 | M10 | 12 | 60 | 69 | 10500 | 221 | 4960 | 201 | 122 | 4,0 | ● |
| 100 x 145 | 110 | 98 | 92 | 35 | M12 | 12 | 80 | 145 | 26000 | 520 | 197 | 121 | M12 | 12 | 80 | 120 | 16850 | 337 | 8580 | 219 | 124 | 6,1 | ● |
| 110 x 155 | 110 | 98 | 92 | 35 | M12 | 12 | 80 | 145 | 28600 | 520 | 179 | 114 | M12 | 12 | 80 | 120 | 18000 | 327 | 9440 | 203 | 118 | 6,6 | ● |
| 120 x 165 | 110 | 98 | 92 | 35 | M12 | 14 | 80 | 145 | 36300 | 605 | 191 | 124 | M12 | 14 | 80 | 120 | 23350 | 389 | 10300 | 214 | 128 | 7,1 | ● |
| 130 x 180 | 128 | 114 | 108 | 41 | M14 | 12 | 90 | 230 | 46000 | 708 | 176 | 114 | M14 | 12 | 90 | 190 | 29950 | 461 | 15300 | 201 | 119 | 10,0 | ● |
| 140 x 190 | 128 | 114 | 108 | 41 | M14 | 14 | 90 | 230 | 57800 | 826 | 191 | 126 | M14 | 14 | 90 | 190 | 37200 | 531 | 16500 | 214 | 129 | 10,6 | ● |
| 150 x 200 | 128 | 114 | 108 | 41 | M14 | 16 | 90 | 230 | 70800 | 944 | 204 | 136 | M14 | 16 | 90 | 190 | 46400 | 619 | 17700 | 226 | 139 | 11,2 | ● |
| 160 x 210 | 128 | 114 | 108 | 41 | M14 | 16 | 90 | 230 | 75500 | 944 | 191 | 130 | M14 | 16 | 90 | 190 | 48600 | 608 | 18800 | 214 | 133 | 11,9 | ● |
| 170 x 225 | 162 | 146 | 136 | 52 | M16 | 14 | 110 | 355 | 95900 | 1128 | 169 | 114 | M16 | 14 | 110 | 295 | 59100 | 695 | 32000 | 196 | 119 | 17,6 | ● |
| 180 x 235 | 162 | 146 | 136 | 52 | M16 | 15 | 110 | 355 | 108800 | 1209 | 171 | 117 | M16 | 15 | 110 | 295 | 67500 | 750 | 33900 | 198 | 122 | 18,5 | ● |
| 190 x 250 | 162 | 146 | 136 | 52 | M16 | 16 | 110 | 355 | 122500 | 1289 | 173 | 117 | M16 | 16 | 110 | 295 | 76100 | 801 | 35800 | 199 | 122 | 21,4 | ● |
| 200 x 260 | 162 | 146 | 136 | 52 | M16 | 16 | 110 | 355 | 128900 | 1289 | 164 | 113 | M16 | 16 | 110 | 295 | 78600 | 786 | 37700 | 192 | 118 | 22,4 | ● |
| 220 x 285 | 162 | 146 | 136 | 52 | M16 | 18 | 110 | 355 | 171800 | 1562 | 181 | 120 | M16 | 18 | 110 | 295 | 105000 | 955 | 41400 | 195 | 126 | 26,6 | ● |
| 240 x 305 | 162 | 146 | 136 | 52 | M16 | 20 | 110 | 355 | 208000 | 1733 | 184 | 125 | M16 | 20 | 110 | 295 | 128000 | 1067 | 45200 | 198 | 130 | 28,7 | ● |
| 260 x 325 | 166 | 150 | 134 | 55 | M16 | 21 | 110 | 355 | 237000 | 1823 | 169 | 117 | M16 | 21 | 110 | 295 | 142000 | 1092 | 51000 | 187 | 123 | 31,2 | ● |
| 280 x 355 | 197 | 177 | 165 | 66 | M20 | 18 | 130 | 690 | 340000 | 2429 | 174 | 119 | M20 | 18 | 130 | 580 | 208000 | 1486 | 81300 | 192 | 125 | 46,8 | ● |
| 300 x 375 | 197 | 177 | 165 | 66 | M20 | 20 | 130 | 690 | 405000 | 2700 | 181 | 125 | M20 | 20 | 130 | 580 | 252000 | 1680 | 87100 | 198 | 130 | 69,7 | ● |
| 320 x 405 | 197 | 177 | 165 | 66 | M20 | 21 | 130 | 690 | 453000 | 2831 | 178 | 121 | M20 | 21 | 130 | 580 | 280000 | 1750 | 92900 | 196 | 127 | 60,5 | ● |
| 340 x 425 | 197 | 177 | 165 | 66 | M20 | 22 | 130 | 690 | 504900 | 2970 | 176 | 121 | M20 | 22 | 130 | 580 | 311000 | 1829 | 98700 | 193 | 127 | 63,9 | ● |
| 360 x 455 | 224 | 203 | 190 | 76 | M22 | 21 | 150 | 930 | 626000 | 3478 | 169 | 115 | M22 | 21 | 150 | 780 | 381000 | 2117 | 138500 | 189 | 121 | 86,8 | ● |
| 380 x 475 | 224 | 203 | 190 | 76 | M22 | 22 | 150 | 930 | 692000 | 3642 | 167 | 115 | M22 | 22 | 150 | 780 | 420000 | 2211 | 146000 | 188 | 122 | 91,0 | ● |
| 400 x 495 | 224 | 203 | 190 | 76 | M22 | 24 | 150 | 930 | 795000 | 3975 | 173 | 121 | M22 | 24 | 150 | 780 | 489000 | 2445 | 154000 | 194 | 127 | 95,3 | ● |
| 420 x 515 | 224 | 203 | 190 | 76 | M22 | 24 | 150 | 930 | 835000 | 3976 | 165 | 116 | M22 | 24 | 150 | 780 | 505000 | 2405 | 161500 | 186 | 123 | 100 | ● |
| 440 x 535 | 224 | 203 | 190 | 76 | M22 | 24 | 150 | 930 | 875000 | 3977 | 158 | 112 | M22 | 24 | 150 | 780 | 517000 | 2350 | 169000 | 178 | 120 | 105 | ● |
| 460 x 555 | 224 | 203 | 190 | 76 | M22 | 24 | 150 | 930 | 914000 | 3974 | 151 | 108 | M22 | 24 | 150 | 780 | 530000 | 2304 | 177000 | 172 | 117 | 109 | ● |
| 480 x 575 | 224 | 203 | 190 | 76 | M22 | 28 | 150 | 930 | 1113000 | 4638 | 169 | 121 | M22 | 28 | 150 | 780 | 678000 | 2825 | 184500 | 189 | 128 | 114 | ● |
| 500 x 595 | 224 | 203 | 190 | 76 | M22 | 28 | 150 | 930 | 1160000 | 4640 | 162 | 117 | M22 | 28 | 150 | 780 | 692000 | 2768 | 192000 | 182 | 125 | 119 | ● |
| 520 x 615 | 224 | 203 | 190 | 76 | M22 | 30 | 150 | 930 | 1292000 | 4969 | 167 | 122 | M22 | 30 | 150 | 780 | 780000 | 3000 | 200000 | 186 | 129 | 122,5 | ● |
| 540 x 635 | 224 | 203 | 190 | 76 | M22 | 30 | 150 | 930 | 1342000 | 4970 | 161 | 118 | M22 | 30 | 150 | 780 | 799000 | 2959 | 207500 | 180 | 126 | 128 | ● |
| 560 x 655 | 224 | 203 | 190 | 76 | M22 | 32 | 150 | 930 | 1484000 | 5300 | 165 | 122 | M22 | 32 | 150 | 780 | 893000 | 3189 | 215500 | 184 | 129 | 131 | ● |
| 580 x 675 | 224 | 203 | 190 | 76 | M22 | 32 | 150 | 930 | 1537000 | 5300 | 159 | 118 | M22 | 32 | 150 | 780 | 912000 | 3145 | 223000 | 179 | 127 | 136 | ● |
| 600 x 695 | 224 | 203 | 190 | 76 | M22 | 33 | 150 | 930 | 1640000 | 5467 | 159 | 118 | M22 | 33 | 150 | 780 | 972000 | 3240 | 231000 | 179 | 127 | 139 | ● |

● Spannelementgrößen ab Lager lieferbar.

¹⁾ Außenring ab Gr. 400 x 495 nicht geschlitzt.

²⁾ Dies sind die maximalen Schraubenanziehkräfte. Sie können um max. 40 % der o. g. Werte reduziert werden, wobei dann T, F_{ax}, P_W und P_N entsprechend proportional sinken.

NEW

CLAMPEX®

Spannmutter

KTR-Präzisions-Wellengelenke

Spannsätze