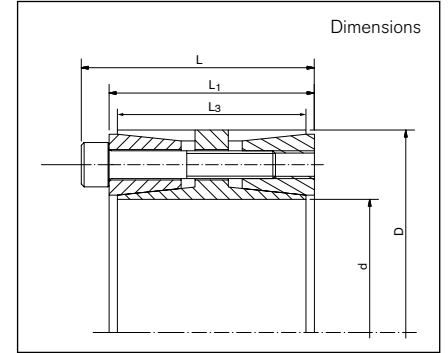
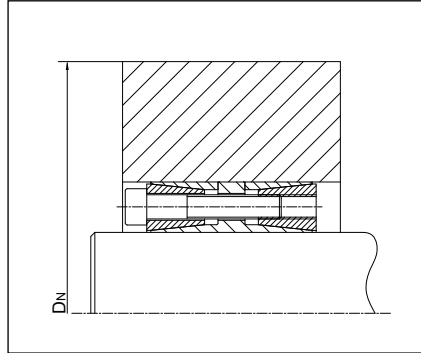


RINGFEDER® Locking Assemblies for Bending Moments

RfN 7015.1 M_b 60%



| Basic dimensions when screws are not tightened | | |
|--|---|---|
| d | = Inner diameter | p_Wmin. at M_b60% = Min. surface pressure on shaft |
| D | = Outer diameter | p_Nmin. at M_b60% = Min. surface pressure on hub |
| n_{Sc} | = Quantity of clamping screws | F_{ax} at M_b60% = Transmissible axial force |
| D_G | = Thread | DN min at Rp0,2 |
| T_A | = Max tightened torque of the clamping screws | 250 N/mm² +M_b60% = Min. hub outer diameter depending of the given hub yield point Rp0,2 and part of bending moment |
| T without M_b | = Transmissible torque at given T _A | DN min bei Rp0,2 |
| p_W without M_b | = Surface pressure on shaft at given T _A | 350 N/mm² +M_b60% = Min. hub outer diameter depending of the given hub yield point Rp0,2 and part of bending moment |
| p_N without M_b | = Surface pressure on hub at given T _A | DN min at Rp0,2 |
| M_b60% | = 60% of max. bending moment | 450 N/mm² +M_b60% = Min. hub outer diameter depending of the given hub yield point Rp0,2 and part of bending moment |
| T_{res.} at M_b60% | = Remaining transmissible torque at indicated M _b 60% and specified torque | Gw = Weight |
| p_Wmax. at M_b60% | = Max. surface pressure on shaft | |
| p_Nmax. at M_b60% | = Max. surface pressure on hub | |

| Locking Assembly dimensions ¹⁾ | Clamping screws ISO 4762-12.9 | | | T | p _W | p _N | M _b 60% | T _{res.} | p _W max | p _N max | p _W min | p _N min | F _{ax} | DN min at Rp0,2 | | | Gw | | | | | | |
|---|-------------------------------|-----|----|---------|----------------|----------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|-----------------|-----------------|----------------|----------------|-----|----------------|----------------|----------------|--------------------|--------------------|--------------------|
| | Thread | | | | | | | | | | | | | without | | | | at | at | at | 250 | 350 | 450 |
| | d | x | D | | | | | | | | | | | n _{Sc} | D _G | T _A | | M _b | M _b | M _b | M _b 60% | M _b 60% | M _b 60% |
| 100 | x | 145 | 9 | 10 x 55 | 83 | 6575 | 91 | 63 | 3924 | 5276 | 112 | 77 | 71 | 49 | 106 | 185 | 174 | 169 | 4,1 | | | | |
| 110 | x | 155 | 10 | 10 x 55 | 83 | 8037 | 92 | 65 | 4740 | 6490 | 115 | 81 | 70 | 49 | 118 | 201 | 188 | 182 | 4,4 | | | | |
| 120 | x | 165 | 12 | 10 x 55 | 83 | 10521 | 101 | 74 | 6276 | 8444 | 129 | 94 | 74 | 54 | 141 | 225 | 207 | 199 | 4,8 | | | | |
| 130 | x | 180 | 15 | 10 x 60 | 83 | 14247 | 101 | 73 | 8502 | 11432 | 127 | 92 | 75 | 54 | 176 | 244 | 226 | 217 | 6,5 | | | | |
| 140 | x | 190 | 15 | 10 x 60 | 83 | 15343 | 94 | 69 | 9156 | 12311 | 120 | 89 | 68 | 50 | 176 | 254 | 236 | 227 | 7 | | | | |
| 150 | x | 200 | 16 | 10 x 60 | 83 | 17534 | 94 | 70 | 10464 | 14070 | 121 | 91 | 66 | 49 | 188 | 270 | 250 | 240 | 7,4 | | | | |
| 160 | x | 210 | 18 | 10 x 60 | 83 | 21041 | 99 | 75 | 12558 | 16883 | 130 | 99 | 67 | 51 | 211 | 294 | 269 | 257 | 7,8 | | | | |
| 170 | x | 225 | 15 | 12 x 65 | 145 | 27352 | 105 | 80 | 16326 | 21946 | 138 | 104 | 73 | 55 | 258 | 321 | 292 | 278 | 10 | | | | |
| 180 | x | 235 | 16 | 12 x 65 | 145 | 30892 | 106 | 81 | 18438 | 24786 | 141 | 108 | 72 | 55 | 275 | 341 | 308 | 293 | 10,6 | | | | |
| 190 | x | 250 | 18 | 12 x 75 | 145 | 36684 | 96 | 73 | 21900 | 29430 | 125 | 95 | 67 | 51 | 310 | 347 | 318 | 304 | 14,3 | | | | |
| 200 | x | 260 | 20 | 12 x 75 | 145 | 42906 | 101 | 78 | 25614 | 34421 | 133 | 102 | 70 | 54 | 344 | 374 | 338 | 322 | 15 | | | | |
| 220 | x | 285 | 21 | 12 x 80 | 145 | 49556 | 89 | 69 | 29580 | 39760 | 116 | 90 | 61 | 47 | 361 | 389 | 359 | 344 | 19,8 | | | | |

¹⁾ More Locking Assemblies dimensions (L, L₁, L₂) you will find in our actual catalogue.

To continue see next page

Remark! The Values of the shaft- and hub pressures have been calculated with the screw tightening shown in the tables. Increase resp. reduction of the screw tightening torque results in different calculation values!

RINGFEDER® Locking Assemblies for Bending Moments

RfN 7015.1 M_b 60%

| Locking Assembly dimensions ¹⁾ | | | Clamping screws ISO 4762-12.9 | | | T | P _W | P _N | M _b 60% | T _{res} | P _W max | P _N max | P _W min | P _N min | F _{ax} | DN min at R _{p0.2} | | | G _w |
|---|---|-----|-------------------------------|----------------|----------------|----------------|-------------------|----------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-----------------------------|------|------|----------------|
| | | | Thread | | | | | | | | | | | | | without | | | |
| d | x | D | n _{Sc} | D _G | T _A | M _b | M _b | M _b | M _b 60% | M _b 60% | M _b 60% | M _b 60% | M _b 60% | M _b 60% | M _b 60% | [N/mm ²] | | | kg |
| mm | | | | mm | Nm | Nm | N/mm ² | | | N/mm ² | | | kN | mm | | | kg | | |
| 240 | x | 305 | 24 | 12 x 80 | 145 | 61784 | 93 | 73 | 36882 | 49568 | 124 | 98 | 62 | 48 | 413 | 432 | 393 | 375 | 21,4 |
| 260 | x | 325 | 27 | 12 x 80 | 145 | 75300 | 97 | 77 | 44952 | 60410 | 132 | 105 | 61 | 49 | 465 | 478 | 429 | 408 | 23 |
| 280 | x | 355 | 28 | 14 x 100 | 230 | 115034 | 106 | 84 | 68670 | 92289 | 141 | 111 | 72 | 57 | 659 | 542 | 480 | 453 | 35,2 |
| 300 | x | 375 | 28 | 14 x 100 | 230 | 123250 | 99 | 80 | 73578 | 98878 | 134 | 107 | 65 | 52 | 659 | 560 | 500 | 474 | 37,4 |
| 320 | x | 405 | 28 | 16 x 110 | 355 | 179962 | 110 | 87 | 107430 | 144378 | 146 | 115 | 73 | 58 | 902 | 632 | 555 | 523 | 51,3 |
| 340 | x | 425 | 28 | 16 x 110 | 355 | 191209 | 103 | 83 | 114150 | 153398 | 140 | 112 | 67 | 53 | 902 | 650 | 575 | 543 | 54,1 |
| 360 | x | 455 | 24 | 18 x 140 | 485 | 209622 | 84 | 67 | 125142 | 168170 | 112 | 88 | 57 | 45 | 934 | 622 | 573 | 550 | 75,4 |
| 380 | x | 475 | 27 | 18 x 140 | 485 | 248927 | 90 | 72 | 148602 | 199704 | 121 | 97 | 59 | 47 | 1051 | 675 | 613 | 585 | 79 |
| 400 | x | 495 | 32 | 18 x 140 | 485 | 310552 | 101 | 82 | 185394 | 249141 | 138 | 111 | 64 | 52 | 1246 | 760 | 671 | 633 | 82,8 |
| 420 | x | 515 | 32 | 18 x 140 | 485 | 326079 | 96 | 78 | 194664 | 261598 | 133 | 108 | 59 | 48 | 1246 | 778 | 692 | 654 | 86,5 |
| 440 | x | 545 | 27 | 20 x 140 | 690 | 372775 | 91 | 74 | 222540 | 299060 | 125 | 101 | 57 | 46 | 1359 | 788 | 712 | 678 | 110 |
| 460 | x | 565 | 27 | 20 x 140 | 690 | 389719 | 87 | 71 | 232656 | 312653 | 121 | 98 | 53 | 44 | 1359 | 808 | 733 | 698 | 114 |
| 480 | x | 585 | 30 | 20 x 140 | 690 | 451848 | 93 | 76 | 269700 | 362531 | 130 | 107 | 55 | 45 | 1511 | 873 | 780 | 739 | 119 |
| 500 | x | 605 | 30 | 20 x 140 | 690 | 470675 | 89 | 74 | 280980 | 377605 | 126 | 104 | 52 | 43 | 1510 | 892 | 800 | 759 | 123 |
| 520 | x | 630 | 32 | 20 x 150 | 690 | 522135 | 80 | 66 | 311700 | 418890 | 112 | 93 | 48 | 40 | 1611 | 879 | 804 | 769 | 148 |
| 540 | x | 650 | 32 | 20 x 150 | 690 | 542218 | 77 | 64 | 323640 | 435037 | 109 | 91 | 45 | 38 | 1611 | 899 | 824 | 789 | 154 |
| 560 | x | 670 | 36 | 20 x 150 | 690 | 632587 | 84 | 70 | 377640 | 507498 | 120 | 100 | 48 | 40 | 1812 | 969 | 875 | 833 | 160 |
| 580 | x | 690 | 36 | 20 x 150 | 690 | 655180 | 81 | 68 | 391134 | 525618 | 117 | 98 | 45 | 38 | 1812 | 989 | 896 | 854 | 165 |
| 600 | x | 710 | 36 | 20 x 150 | 690 | 677772 | 78 | 66 | 404622 | 543743 | 114 | 97 | 42 | 36 | 1812 | 1009 | 917 | 875 | 170 |
| 620 | x | 730 | 36 | 20 x 150 | 690 | 700364 | 76 | 64 | 418110 | 561867 | 112 | 95 | 40 | 34 | 1812 | 1029 | 937 | 895 | 175 |
| 640 | x | 750 | 36 | 20 x 150 | 690 | 722957 | 73 | 63 | 423022 | 586275 | 109 | 93 | 38 | 33 | 1832 | 1046 | 957 | 915 | 180 |
| 660 | x | 770 | 40 | 20 x 150 | 690 | 828388 | 79 | 68 | 469980 | 682162 | 117 | 100 | 41 | 35 | 2067 | 1115 | 1006 | 957 | 194 |
| 680 | x | 790 | 40 | 20 x 150 | 690 | 853491 | 77 | 66 | 469980 | 712436 | 114 | 98 | 40 | 34 | 2095 | 1129 | 1024 | 976 | 199 |
| 700 | x | 810 | 40 | 20 x 150 | 690 | 878593 | 75 | 64 | 469980 | 742324 | 110 | 95 | 39 | 34 | 2121 | 1144 | 1042 | 995 | 205 |
| 720 | x | 830 | 40 | 20 x 150 | 690 | 903696 | 73 | 63 | 469980 | 771871 | 107 | 93 | 38 | 33 | 2144 | 1159 | 1060 | 1013 | 210 |
| 740 | x | 850 | 42 | 20 x 150 | 690 | 975239 | 74 | 65 | 493500 | 841159 | 110 | 95 | 39 | 34 | 2273 | 1201 | 1093 | 1044 | 216 |
| 760 | x | 870 | 42 | 20 x 150 | 690 | 1001596 | 72 | 63 | 493500 | 871581 | 107 | 93 | 38 | 33 | 2294 | 1216 | 1111 | 1063 | 221 |
| 780 | x | 890 | 42 | 20 x 150 | 690 | 1027954 | 70 | 62 | 493500 | 901747 | 104 | 91 | 37 | 32 | 2312 | 1232 | 1129 | 1081 | 227 |
| 800 | x | 910 | 42 | 20 x 150 | 690 | 1054312 | 69 | 60 | 493500 | 931682 | 101 | 89 | 36 | 31 | 2329 | 1248 | 1148 | 1100 | 232 |

¹⁾ More Locking Assemblies dimensions (L, L₁, L₂) you will find in our actual catalogue.

[More sizes on request](#)

Ordering example: RfN 7015.1

| Type | d | D |
|------------|-----|-----|
| RfN 7015.1 | 160 | 210 |

Technical Information

■ Surface finishes: Shaft and hub bores R_a = 3,2 µm

■ Tolerances: Shaft: h8 · Hub: H8

Remark! The Values of the shaft- and hub pressures have been calculated with the screw tightening shown in the tables. Increase resp. reduction of the screw tightening torque results in different calculation values!

Subject to technical change.