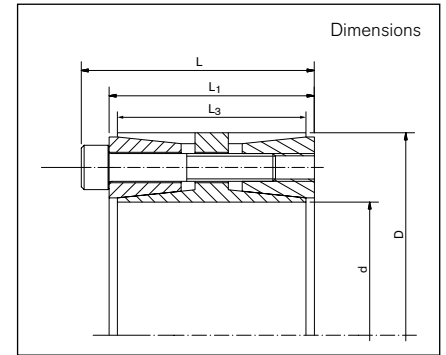


RINGFEDER® Locking Assemblies for Bending Moments

RfN 7015.1



| Basic dimensions when screws are not tightened | | | |
|--|---|---|---|
| d | = Inner diameter | p_N | = Surface pressure on hub at given T _A |
| D | = Outer diameter | M_bmax. | = Max. bending moment under the specified T _A |
| L | = Overall length | T_{res.} at M_bmax. | = Remaining transmissible torque at indicated M _b max and specified torque |
| L₁ | = Overall length without screws | p_wmax. at M_bmax. | = Max. surface pressure on shaft at max. bending moment |
| L₃ | = Width of inner ring | p_Nmax. at M_bmax. | = Max. surface pressure on hub at max. bending moment |
| n_{Sc} | = Quantity of screws | p_wmin. at M_bmax. | = Min. surface pressure on shaft at max. bending moment |
| D_G | = Thread | p_Nmin. at M_bmax. | = Min. surface pressure on hub at max. bending moment |
| T_A | = Max. tightened torque of the clamping screws | F_{ax} at M_bmax. | = Transmissible axial force at max. bending moment |
| T | = Transmissible torque at given T _A | | |
| p_w | = Surface pressure on shaft at given T _A | | |

| Locking Assembly dimensions | | | | | | Locking screws ISO 4762-12.9 | | | | T _{res.} | p _w max | p _N max | p _w min | p _N min | F _{ax} | | | | | | | | |
|-----------------------------|---|------|--------|---|--------|------------------------------|----------------|----------------|-----------------|-------------------|--------------------|--------------------|--------------------|--------------------|---------------------|------------------------|------------------------|------------------------|------------------------|-------|------|------|-------|
| d | x | D | d | x | D | L | L ₁ | L ₃ | n _{Sc} | D _G | T _A | T | p _w | p _N | M _b max. | at M _b max. | at M _b max. | at M _b max. | at M _b max. | | | | |
| mm | | inch | | | | | pcs. | | ft-lbs | ft-lbs | psi | ft-lbs | psi | psi | psi | psi | psi | psi | psi | lbs | | | |
| 100 | x | 145 | 3.937 | x | 5.709 | 2.953 | 2.559 | 2.362 | 9 | M10 | x | 55 | 61 | 4850 | 13188 | 9130 | 4824 | 0 | 18116 | 12464 | 8261 | 5652 | 3147 |
| 110 | x | 155 | 4.331 | x | 6.102 | 2.953 | 2.559 | 2.362 | 10 | M10 | x | 55 | 61 | 5928 | 13333 | 9420 | 5827 | 1088 | 18841 | 13333 | 7971 | 5652 | 6070 |
| 120 | x | 165 | 4.724 | x | 6.496 | 2.953 | 2.559 | 2.362 | 12 | M10 | x | 55 | 61 | 7760 | 14638 | 10725 | 7715 | 832 | 21304 | 15507 | 8116 | 5942 | 4271 |
| 130 | x | 180 | 5.118 | x | 7.087 | 3.307 | 2.913 | 2.677 | 15 | M10 | x | 60 | 61 | 10508 | 14638 | 10580 | 10451 | 1089 | 21014 | 15217 | 8406 | 6087 | 5171 |
| 140 | x | 190 | 5.512 | x | 7.480 | 3.307 | 2.913 | 2.677 | 15 | M10 | x | 60 | 61 | 11317 | 13623 | 10000 | 11255 | 1172 | 20000 | 14638 | 7246 | 5362 | 5171 |
| 150 | x | 200 | 5.906 | x | 7.874 | 3.307 | 2.913 | 2.677 | 16 | M10 | x | 60 | 61 | 12933 | 13623 | 10145 | 12863 | 1339 | 20290 | 15217 | 6812 | 5072 | 5395 |
| 160 | x | 210 | 6.299 | x | 8.268 | 3.307 | 2.913 | 2.677 | 18 | M10 | x | 60 | 61 | 15519 | 14348 | 10870 | 15437 | 1593 | 21884 | 16667 | 6667 | 5072 | 6070 |
| 170 | x | 225 | 6.693 | x | 8.858 | 3.661 | 3.189 | 2.953 | 15 | M12 | x | 65 | 107 | 20174 | 15217 | 11594 | 20069 | 2056 | 23043 | 17391 | 7536 | 5652 | 7419 |
| 180 | x | 235 | 7.087 | x | 9.252 | 3.661 | 3.189 | 2.953 | 16 | M12 | x | 65 | 107 | 22785 | 15362 | 11739 | 22666 | 2331 | 23768 | 18116 | 7101 | 5362 | 7868 |
| 190 | x | 250 | 7.480 | x | 9.843 | 4.173 | 3.701 | 3.465 | 18 | M12 | x | 75 | 107 | 27057 | 13913 | 10580 | 26921 | 2710 | 20870 | 15797 | 6957 | 5362 | 8768 |
| 200 | x | 260 | 7.874 | x | 10.236 | 4.173 | 3.701 | 3.465 | 20 | M12 | x | 75 | 107 | 31646 | 14638 | 11304 | 31487 | 3170 | 22319 | 17246 | 6957 | 5362 | 9667 |
| 220 | x | 285 | 8.661 | x | 11.220 | 4.567 | 4.094 | 3.858 | 21 | M12 | x | 80 | 107 | 36551 | 12899 | 10000 | 36362 | 3712 | 19565 | 15072 | 6232 | 4783 | 10341 |
| 240 | x | 305 | 9.449 | x | 12.008 | 4.567 | 4.094 | 3.858 | 24 | M12 | x | 80 | 107 | 45570 | 13478 | 10580 | 45339 | 4591 | 21014 | 16522 | 5942 | 4638 | 11690 |
| 260 | x | 325 | 10.236 | x | 12.795 | 4.567 | 4.094 | 3.858 | 27 | M12 | x | 80 | 107 | 55539 | 14058 | 11159 | 55259 | 5570 | 22464 | 17971 | 5507 | 4348 | 13039 |

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

| Locking Assembly dimensions | | | | | | Locking screws ISO 4762-12.9 | | | | | | T _{res.} | PW _{max} | PN _{max} | PW _{min} | PN _{min} | F _{ax} | | | | | | |
|-----------------------------|---|------|--------|---|--------|------------------------------|----------------|----------------|-----------------|----------------|----------------|-------------------|-------------------|-------------------|---------------------|---------------------|-----------------|--------|-------|-------|------|------|--------|
| d | x | D | d | x | D | L | L ₁ | L ₃ | n _{Sc} | D _G | T _A | T | p _W | p _N | M _b max. | M _b max. | at | at | at | at | | | |
| mm | | inch | | | | | | | pcs. | | | ft-lbs | ft-lbs | psi | | ft-lbs | psi | | psi | psi | lbs | | |
| 280 | x | 355 | 11.024 | x | 13.976 | 5.512 | 4.961 | 4.724 | 28 | M14 | x | 100 | 170 | 84846 | 15362 | 12174 | 84415 | 8537 | 23768 | 18696 | 7101 | 5652 | 18659 |
| 300 | x | 375 | 11.811 | x | 14.764 | 5.512 | 4.961 | 4.724 | 28 | M14 | x | 100 | 170 | 90906 | 14348 | 11594 | 90448 | 9110 | 22754 | 18116 | 6087 | 4928 | 18434 |
| 320 | x | 405 | 12.598 | x | 15.945 | 6.220 | 5.591 | 5.315 | 28 | M16 | x | 110 | 262 | 132735 | 15942 | 12609 | 132062 | 13345 | 24783 | 19565 | 7101 | 5652 | 25404 |
| 340 | x | 425 | 13.386 | x | 16.732 | 6.220 | 5.591 | 5.315 | 28 | M16 | x | 110 | 262 | 141030 | 14928 | 12029 | 140323 | 14110 | 23768 | 18986 | 6087 | 4928 | 25404 |
| 360 | x | 455 | 14.173 | x | 17.913 | 7.205 | 6.496 | 6.220 | 24 | M18 | x | 140 | 358 | 154611 | 12174 | 9710 | 153835 | 15473 | 18841 | 14928 | 5507 | 4348 | 26303 |
| 380 | x | 475 | 14.961 | x | 18.701 | 7.205 | 6.496 | 6.220 | 27 | M18 | x | 140 | 358 | 183602 | 13043 | 10435 | 182674 | 18425 | 20435 | 16377 | 5507 | 4348 | 29450 |
| 400 | x | 495 | 15.748 | x | 19.488 | 7.205 | 6.496 | 6.220 | 32 | M18 | x | 140 | 358 | 229054 | 14638 | 11884 | 227902 | 22941 | 23478 | 18986 | 5797 | 4638 | 35070 |
| 420 | x | 515 | 16.535 | x | 20.276 | 7.205 | 6.496 | 6.220 | 32 | M18 | x | 140 | 358 | 240507 | 13913 | 11304 | 239298 | 24085 | 22754 | 18551 | 5072 | 4058 | 34846 |
| 440 | x | 545 | 17.323 | x | 21.457 | 7.874 | 7.087 | 6.772 | 27 | M20 | x | 140 | 509 | 274948 | 13188 | 10725 | 273565 | 27539 | 21304 | 17246 | 5072 | 4058 | 38218 |
| 460 | x | 565 | 18.110 | x | 22.244 | 7.874 | 7.087 | 6.772 | 27 | M20 | x | 140 | 509 | 287446 | 12609 | 10290 | 286001 | 28784 | 20725 | 16957 | 4493 | 3623 | 38218 |
| 480 | x | 585 | 18.898 | x | 23.031 | 7.874 | 7.087 | 6.772 | 30 | M20 | x | 140 | 509 | 333270 | 13478 | 11014 | 331539 | 33931 | 22464 | 18406 | 4348 | 3623 | 43164 |
| 500 | x | 605 | 19.685 | x | 23.819 | 7.874 | 7.087 | 6.772 | 30 | M20 | x | 140 | 509 | 347157 | 12899 | 10725 | 345405 | 34831 | 21884 | 18116 | 3913 | 3188 | 42489 |
| 520 | x | 630 | 20.472 | x | 24.803 | 8.661 | 7.874 | 7.480 | 32 | M20 | x | 150 | 509 | 385112 | 11594 | 9565 | 383169 | 38645 | 19420 | 15942 | 3913 | 3188 | 45412 |
| 540 | x | 650 | 21.260 | x | 25.591 | 8.661 | 7.874 | 7.480 | 32 | M20 | x | 150 | 509 | 399925 | 11159 | 9275 | 397846 | 40718 | 18986 | 15797 | 3478 | 2899 | 45861 |
| 560 | x | 670 | 22.047 | x | 26.378 | 8.661 | 7.874 | 7.480 | 36 | M20 | x | 150 | 509 | 466578 | 12174 | 10145 | 464228 | 46778 | 20870 | 17391 | 3478 | 2899 | 51032 |
| 580 | x | 690 | 22.835 | x | 27.165 | 8.661 | 7.874 | 7.480 | 36 | M20 | x | 150 | 509 | 483242 | 11739 | 9855 | 480816 | 48365 | 20435 | 17246 | 3043 | 2609 | 50807 |
| 600 | x | 710 | 23.622 | x | 27.953 | 8.661 | 7.874 | 7.480 | 36 | M20 | x | 150 | 509 | 499906 | 11304 | 9565 | 497396 | 50024 | 20000 | 16957 | 2609 | 2319 | 50807 |
| 620 | x | 730 | 24.409 | x | 28.740 | 8.661 | 7.874 | 7.480 | 36 | M20 | x | 150 | 509 | 516569 | 11014 | 9275 | 513977 | 51685 | 19710 | 16667 | 2319 | 1884 | 50807 |
| 640 | x | 750 | 25.197 | x | 29.528 | 8.661 | 7.874 | 7.480 | 36 | M20 | x | 150 | 509 | 533233 | 10580 | 9130 | 520015 | 517987 | 19130 | 16377 | 2174 | 1884 | 112405 |
| 660 | x | 770 | 25.984 | x | 30.315 | 8.661 | 7.874 | 7.480 | 40 | M20 | x | 150 | 509 | 610996 | 11449 | 9855 | 577740 | 577740 | 20580 | 17681 | 2319 | 2029 | 183670 |
| 680 | x | 790 | 26.772 | x | 31.102 | 8.661 | 7.874 | 7.480 | 40 | M20 | x | 150 | 509 | 629511 | 11159 | 9565 | 577740 | 250001 | 20000 | 17246 | 2174 | 1884 | 224136 |
| 700 | x | 810 | 27.559 | x | 31.890 | 8.661 | 7.874 | 7.480 | 40 | M20 | x | 150 | 509 | 648026 | 10870 | 9275 | 577740 | 293520 | 19420 | 16812 | 2174 | 1884 | 255609 |
| 720 | x | 830 | 28.346 | x | 32.677 | 8.661 | 7.874 | 7.480 | 40 | M20 | x | 150 | 509 | 666541 | 10580 | 9130 | 577740 | 332405 | 18986 | 16377 | 2174 | 1884 | 281462 |
| 740 | x | 850 | 29.134 | x | 33.465 | 8.661 | 7.874 | 7.480 | 42 | M20 | x | 150 | 509 | 719309 | 10725 | 9420 | 606653 | 386494 | 19275 | 16812 | 2174 | 1884 | 318331 |
| 760 | x | 870 | 29.921 | x | 34.252 | 8.661 | 7.874 | 7.480 | 42 | M20 | x | 150 | 509 | 738749 | 10435 | 9130 | 606653 | 421572 | 18841 | 16377 | 2029 | 1884 | 338114 |
| 780 | x | 890 | 30.709 | x | 35.039 | 8.661 | 7.874 | 7.480 | 42 | M20 | x | 150 | 509 | 758190 | 10145 | 8986 | 606653 | 454779 | 18406 | 16087 | 2029 | 1739 | 355425 |
| 800 | x | 910 | 31.496 | x | 35.827 | 8.661 | 7.874 | 7.480 | 42 | M20 | x | 150 | 509 | 777631 | 10000 | 8696 | 606653 | 486500 | 17826 | 15652 | 2029 | 1739 | 370712 |

More sizes on request

Ordering example: RfN 7015.1

| Type | d | D |
|------------|-------|-------|
| RfN 7015.1 | 6.299 | 8.268 |

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.