



| Part no | Shaft | Circlip Dimensions | | | | | | | | | | Groove Dimensions | | | | |
|---------|-------|--------------------|-------------|------|-------------|------|-----|-----|-----|-------|------|-------------------|------|-----|-------------------|--|
| | | (T) | Tolerance | (D) | Tolerance | (C) | (B) | (L) | (H) | Fr kN | (G) | Tolerance | (W) | (N) | F _n kN | |
| 471003 | 3 | 0.40 | +0.00 -0.05 | 2.7 | +0.04 -0.15 | 7.0 | 0.8 | 1.9 | 1.0 | 0.5 | 2.8 | +0.00 -0.040 | 0.5 | 0.3 | 0.2 | |
| 471004 | 4 | 0.40 | +0.00 -0.05 | 3.7 | +0.04 -0.15 | 8.6 | 0.9 | 2.2 | 1.0 | 0.5 | 3.8 | +0.00 -0.048 | 0.5 | 0.3 | 0.2 | |
| 471005 | 5 | 0.60 | +0.00 -0.05 | 4.7 | +0.04 -0.15 | 10.3 | 1.1 | 2.5 | 1.0 | 1.0 | 4.8 | +0.00 -0.048 | 0.7 | 0.3 | 0.3 | |
| 471006 | 6 | 0.70 | +0.00 -0.05 | 5.6 | +0.04 -0.15 | 11.7 | 1.3 | 2.7 | 1.2 | 1.5 | 5.7 | +0.00 -0.048 | 0.8 | 0.5 | 0.5 | |
| 471007 | 7 | 0.80 | +0.00 -0.05 | 6.5 | +0.06 -0.18 | 13.5 | 1.4 | 3.1 | 1.2 | 2.6 | 6.7 | +0.00 -0.06 | 0.9 | 0.5 | 0.5 | |
| 471008 | 8 | 0.80 | +0.00 -0.05 | 7.4 | +0.06 -0.18 | 14.7 | 1.5 | 3.2 | 1.2 | 3.0 | 7.6 | +0.00 -0.06 | 1.1 | 0.6 | 0.8 | |
| 471009 | 9 | 1.00 | +0.00 -0.06 | 8.4 | +0.06 -0.18 | 16.0 | 1.7 | 3.3 | 1.2 | 3.5 | 8.6 | +0.00 -0.06 | 1.1 | 0.6 | 0.9 | |
| 471010 | 10 | 1.00 | +0.00 -0.06 | 9.3 | +0.10 -0.36 | 17.0 | 1.8 | 3.3 | 1.5 | 4.0 | 9.6 | +0.00 -0.06 | 1.1 | 0.6 | 1.0 | |
| 471011 | 11 | 1.00 | +0.00 -0.06 | 10.2 | +0.10 -0.36 | 18.0 | 1.8 | 3.3 | 1.5 | 4.5 | 10.5 | +0.00 -0.11 | 1.1 | 0.8 | 1.4 | |
| 471012 | 12 | 1.00 | +0.00 -0.06 | 11.0 | +0.10 -0.36 | 19.0 | 1.8 | 3.3 | 1.7 | 5.0 | 11.5 | +0.00 -0.11 | 1.1 | 0.8 | 1.5 | |
| 471013 | 13 | 1.00 | +0.00 -0.06 | 11.9 | +0.10 -0.36 | 20.2 | 2.0 | 3.4 | 1.7 | 5.8 | 12.4 | +0.00 -0.11 | 1.1 | 0.9 | 2.0 | |
| 471014 | 14 | 1.00 | +0.00 -0.06 | 12.9 | +0.10 -0.36 | 21.4 | 2.1 | 3.5 | 1.7 | 6.4 | 13.4 | +0.00 -0.11 | 1.1 | 0.9 | 2.2 | |
| 471015 | 15 | 1.00 | +0.00 -0.06 | 13.8 | +0.10 -0.36 | 22.6 | 2.2 | 3.6 | 1.7 | 6.9 | 14.3 | +0.00 -0.11 | 1.1 | 1.1 | 2.7 | |
| 471016 | 16 | 1.00 | +0.00 -0.06 | 14.7 | +0.10 -0.36 | 23.8 | 2.2 | 3.7 | 1.7 | 7.4 | 15.2 | +0.00 -0.11 | 1.1 | 1.2 | 3.3 | |
| 471017 | 17 | 1.00 | +0.00 -0.06 | 15.7 | +0.10 -0.36 | 25.0 | 2.3 | 3.8 | 1.7 | 8.0 | 16.2 | +0.00 -0.11 | 1.1 | 1.2 | 3.5 | |
| 471018 | 18 | 1.20 | +0.00 -0.06 | 16.5 | +0.10 -0.36 | 26.2 | 2.4 | 3.9 | 2.0 | 17.0 | 17.0 | +0.00 -0.11 | 1.3 | 1.5 | 4.6 | |
| 471019 | 19 | 1.20 | +0.00 -0.06 | 17.5 | +0.10 -0.36 | 27.2 | 2.5 | 3.9 | 2.0 | 17.0 | 18.0 | +0.00 -0.11 | 1.3 | 1.5 | 4.8 | |
| 471020 | 20 | 1.20 | +0.00 -0.06 | 18.5 | +0.13 -0.42 | 28.4 | 2.6 | 4.0 | 2.0 | 17.1 | 19.0 | +0.00 -0.21 | 1.3 | 1.5 | 5.1 | |
| 471021 | 21 | 1.20 | +0.00 -0.06 | 19.5 | +0.13 -0.42 | 29.6 | 2.7 | 4.1 | 2.0 | 16.8 | 20.0 | +0.00 -0.21 | 1.3 | 1.5 | 5.4 | |
| 471022 | 22 | 1.20 | +0.00 -0.06 | 20.5 | +0.13 -0.42 | 30.8 | 2.8 | 4.2 | 2.0 | 16.9 | 21.0 | +0.00 -0.21 | 1.3 | 1.5 | 5.7 | |
| 471023 | 23 | 1.20 | +0.00 -0.06 | 21.5 | +0.13 -0.42 | 32.0 | 2.9 | 4.3 | 2.0 | 16.6 | 22.0 | +0.00 -0.21 | 1.3 | 1.5 | 5.9 | |
| 471024 | 24 | 1.20 | +0.00 -0.06 | 22.2 | +0.21 -0.42 | 33.2 | 3.0 | 4.4 | 2.0 | 16.1 | 22.9 | +0.00 -0.21 | 1.3 | 1.7 | 6.8 | |
| 471025 | 25 | 1.20 | +0.00 -0.06 | 23.2 | +0.21 -0.42 | 34.2 | 3.0 | 4.4 | 2.0 | 16.2 | 23.9 | +0.00 -0.21 | 1.3 | 1.7 | 7.1 | |
| 471026 | 26 | 1.20 | +0.00 -0.06 | 24.2 | +0.21 -0.42 | 35.5 | 3.1 | 4.5 | 2.0 | 16.1 | 24.9 | +0.00 -0.21 | 1.3 | 1.7 | 7.3 | |
| 471027 | 27 | 1.20 | +0.00 -0.06 | 24.9 | +0.21 -0.42 | 36.7 | 3.1 | 4.6 | 2.0 | 16.4 | 25.6 | +0.00 -0.21 | 1.3 | 2.1 | 9.6 | |
| 471028 | 28 | 1.50 | +0.00 -0.06 | 25.9 | +0.21 -0.42 | 37.9 | 3.2 | 4.7 | 2.0 | 32.1 | 26.6 | +0.00 -0.21 | 1.6 | 2.1 | 10.0 | |
| 471029 | 29 | 1.50 | +0.00 -0.06 | 26.9 | +0.21 -0.42 | 39.1 | 3.4 | 4.8 | 2.0 | 31.8 | 27.6 | +0.00 -0.21 | 1.6 | 2.1 | 10.4 | |
| 471030 | 30 | 1.50 | +0.00 -0.06 | 27.9 | +0.21 -0.42 | 40.5 | 3.5 | 5.0 | 2.0 | 32.1 | 28.6 | +0.00 -0.21 | 1.6 | 2.1 | 10.7 | |
| 471031 | 31 | 1.50 | +0.00 -0.06 | 28.6 | +0.21 -0.42 | 41.5 | 3.5 | 5.0 | 2.5 | 31.5 | 29.3 | +0.00 -0.21 | 1.6 | 2.6 | 13.9 | |
| 471032 | 32 | 1.50 | +0.00 -0.06 | 29.6 | +0.21 -0.42 | 43.0 | 3.6 | 5.2 | 2.5 | 31.2 | 30.3 | +0.00 -0.25 | 1.6 | 2.6 | 13.9 | |
| 471033 | 33 | 1.50 | +0.00 -0.06 | 30.5 | +0.25 -0.50 | 44.0 | 3.7 | 5.2 | 2.5 | 31.6 | 31.3 | +0.00 -0.25 | 1.6 | 2.6 | 14.3 | |
| 471034 | 34 | 1.50 | +0.00 -0.06 | 31.5 | +0.25 -0.50 | 45.4 | 3.8 | 5.4 | 2.5 | 31.3 | 32.3 | +0.00 -0.25 | 1.6 | 2.6 | 14.7 | |
| 471035 | 35 | 1.50 | +0.00 -0.06 | 32.2 | +0.25 -0.50 | 46.8 | 3.9 | 5.6 | 2.5 | 33.0 | 33.0 | +0.00 -0.25 | 1.6 | 3.0 | 17.8 | |
| 471036 | 36 | 1.75 | +0.00 -0.06 | 33.2 | +0.25 -0.50 | 47.8 | 4.0 | 5.6 | 2.5 | 34.0 | 34.0 | +0.00 -0.25 | 1.85 | 3.0 | 18.3 | |
| 471037 | 37 | 1.75 | +0.00 -0.06 | 34.2 | +0.25 -0.50 | 49.0 | 4.1 | 5.7 | 2.5 | 35.0 | 35.0 | +0.00 -0.25 | 1.85 | 3.0 | 18.8 | |
| 471038 | 38 | 1.75 | +0.00 -0.06 | 35.2 | +0.25 -0.50 | 50.2 | 4.2 | 5.8 | 2.5 | 36.0 | 36.0 | +0.00 -0.25 | 1.85 | 3.0 | 19.3 | |
| 471039 | 39 | 1.75 | +0.00 -0.06 | 36.0 | +0.25 -0.50 | 51.4 | 4.3 | 5.9 | 2.5 | 37.0 | 37.0 | +0.00 -0.25 | 1.85 | 3.8 | 19.9 | |
| 471040 | 40 | 1.75 | +0.00 -0.06 | 36.5 | +0.25 -0.50 | 52.6 | 4.4 | 6.0 | 2.5 | 37.5 | 37.5 | +0.00 -0.25 | 1.85 | 3.8 | 25.3 | |
| 471041 | 41 | 1.75 | +0.00 -0.06 | 37.5 | +0.25 -0.50 | 54.1 | 4.5 | 6.2 | 2.5 | 38.5 | 38.5 | +0.00 -0.25 | 1.85 | 3.8 | 26.0 | |
| 471042 | 42 | 1.75 | +0.00 -0.06 | 38.5 | +0.39 -0.90 | 55.7 | 4.5 | 6.5 | 2.5 | 39.5 | 39.5 | +0.00 -0.25 | 1.85 | 3.8 | 26.7 | |
| 471043 | 43 | 1.75 | +0.00 -0.06 | 39.5 | +0.39 -0.90 | 56.7 | 4.6 | 6.5 | 2.5 | 40.5 | 40.5 | +0.00 -0.25 | 1.85 | 3.8 | 27.3 | |
| 471044 | 44 | 1.75 | +0.00 -0.06 | 40.5 | +0.39 -0.90 | 57.9 | 4.6 | 6.6 | 2.5 | 41.5 | 41.5 | +0.00 -0.25 | 1.85 | 3.8 | 28.0 | |
| 471045 | 45 | 1.75 | +0.00 -0.06 | 41.5 | +0.39 -0.90 | 59.1 | 4.7 | 6.7 | 2.5 | 42.5 | 42.5 | +0.00 -0.25 | 1.85 | 3.8 | 28.1 | |
| 471046 | 46 | 1.75 | +0.00 -0.06 | 42.5 | +0.39 -0.90 | 60.1 | 4.8 | 6.7 | 2.5 | 43.5 | 43.5 | +0.00 -0.25 | 1.85 | 3.8 | 29.0 | |
| 471047 | 47 | 1.75 | +0.00 -0.06 | 43.5 | +0.39 -0.90 | 61.3 | 4.9 | 6.8 | 2.5 | 44.5 | 44.5 | +0.00 -0.25 | 1.85 | 3.8 | 30.0 | |
| 471048 | 48 | 1.75 | +0.00 -0.06 | 44.5 | +0.39 -0.90 | 62.5 | 5.0 | 6.9 | 2.5 | 45.5 | 45.5 | +0.00 -0.25 | 1.85 | 3.8 | 30.1 | |
| 471050 | 50 | 2.00 | +0.00 -0.07 | 45.8 | +0.39 -0.90 | 64.5 | 5.1 | 6.9 | 2.5 | 47.0 | 47.0 | +0.00 -0.25 | 2.15 | 4.5 | 38.0 | |
| 471051 | 51 | 2.00 | +0.00 -0.07 | 46.8 | +0.39 -0.90 | 65.7 | 5.2 | 7.0 | 2.5 | 48.0 | 48.0 | +0.00 -0.25 | 2.15 | 4.5 | 38.8 | |
| 471052 | 52 | 2.00 | +0.00 -0.07 | 47.8 | +0.39 -0.90 | 66.7 | 5.2 | 7.0 | 2.5 | 49.0 | 49.0 | +0.00 -0.25 | 2.15 | 4.5 | 39.7 | |
| 471053 | 53 | 2.00 | +0.00 -0.07 | 48.8 | +0.39 -0.90 | 68.0 | 5.3 | 7.1 | 2.5 | 50.0 | 50.0 | +0.00 -0.25 | 2.15 | 4.5 | 40.4 | |
| 471054 | 54 | 2.00 | +0.00 -0.07 | 49.8 | +0.46 -1.10 | 69.0 | 5.3 | 7.1 | 2.5 | 51.0 | 51.0 | +0.00 -0.30 | 2.15 | 4.5 | 41.2 | |
| 471055 | 55 | 2.00 | +0.00 -0.07 | 50.8 | +0.46 -1.10 | 70.2 | 5.4 | 7.2 | 2.5 | 52.0 | 52.0 | +0.00 -0.30 | 2.15 | 4.5 | 42.0 | |
| 471056 | 56 | 2.00 | +0.00 -0.07 | 51.8 | +0.46 -1.10 | 71.6 | 5.5 | 7.3 | 2.5 | 53.0 | 53.0 | +0.00 -0.30 | 2.15 | 4.5 | 42.8 | |
| 471057 | 57 | 2.00 | +0.00 -0.07 | 52.8 | +0.46 -1.10 | 72.4 | 5.5 | 7.3 | 2.5 | 54.0 | 54.0 | +0.00 -0.30 | 2.15 | 4.5 | 43.7 | |
| 471058 | 58 | 2.00 | +0.00 -0.07 | 53.8 | +0.46 -1.10 | 73.6 | 5.6 | 7.3 | 2.5 | 55.0 | 55.0 | +0.00 -0.30 | 2.15 | 4.5 | 44.3 | |
| 471060 | 60 | 2.00 | +0.00 -0.07 | 55.8 | +0.46 -1.10 | 75.6 | 5.8 | 7.4 | 2.5 | 69.2 | 57.0 | +0.00 -0.30 | 2.15 | 4.5 | 46.0 | |
| 471062 | 62 | 2.00 | +0.00 -0.07 | 57.8 | +0.46 -1.10 | 77.8 | 6.0 | 7.5 | 2.5 | 69.3 | 59.0 | +0.00 -0.30 | 2.15 | 4.5 | 47.5 | |
| 471063 | 63 | 2.00 | +0.00 -0.07 | 58.8 | +0.46 -1.10 | 79.0 | 6.2 | 7.6 | 2.5 | 70.2 | 60.0 | +0.00 -0.30 | 2.15 | 4.5 | 48.3 | |
| 471065 | 65 | 2.50 | +0.00 -0.07 | 60.8 | +0.46 -1.10 | 81.4 | 6.3 | 7.8 | 3.0 | 135.6 | 62.0 | +0.00 -0.30 | 2.65 | 4.5 | 49.8 | |