

Ball screw drives KGT

consisting of ball screw and ball nut

- Produced by different manufacturing processes

Thread-rolling

Thread-grinding

- Gothic thread profile for precisely defined ball track
- Can be combined with a wide variety of nuts from a comprehensive range
- Material: inductive hardened steel
- Screw end machining to customer request

Ball screws MICRON *Line*[™]

- Rolled high precision screw with pitch accuracy of 23 µm for feed motion application with high demands

Ball Screws

Rolled ball screws KGS

The new rolled ball screw MICRON *Line*TM with a lead precision of 23 µm/300mm takes over the high end of the market serviced by ground and polished screws. This lowers your costs but keeps the same high quality. Prompt delivery allows you not only to shorten long delivery times but also to reduce downtimes.

In the thread rolling method, the thread profile is produced by cold rolling. This process strengthens and smoothes the surface. The natural grain-flow of the material is not interrupted.

In the next step, the surface of the rolled-thread bars is inductively hardened. The hardening depth, depending on the dimensions, is approximately 1.5 mm. The hardening process leaves the surface with a coating of oxide that must be removed by polishing with rubberized polishing discs. Before the screw is stored, the required straightness is ensured in the straightening press.

Drives consisting of ball screws in conjunction with corresponding ball nuts exhibit characteristics that have the following advantages over the use of trapezoidal screw drives:

- lower friction
- higher precision
- higher stiffness
- lower axial backlash
- higher reliability
- smoother operation
- longer life
- higher efficiency

Product Groupings

| Characteristics | Micron <i>Line</i> TM | KGS |
|----------------------------|--|--|
| Thread | Gothic profile (pointed profile) | Gothic profile (pointed profile) |
| Diameter | 12 to 40 mm | 12 to 80 mm |
| Lead | 4 to 40 mm | 4 to 50 mm |
| No. of starts | Single and multi-start | Single and multi-start |
| Thread direction | Right hand thread KGS 2005 also available with left hand thread | Right hand thread KGS 2005 also available with left hand thread |
| Length | Standard: 5600 mm (1300 mm for KGS 1204 and 1205) | Standard: 5600 mm (1300 mm for KGS 1204 and 1205) |
| Material | 1.1213 (Cf 53) Ball track inductively hardened and polished Soft-annealed screw end and core | 1.1213 (Cf 53) Ball track inductively hardened and polished Soft-annealed screw end and core |
| Pitch accuracy | 23 µm/300mm | 50 µm/300mm |
| Straightness | L < 500 mm : 0.05 mm/m, L = 500 – 1000 mm : 0.08 mm/m, L > 1000 mm : 0.1 mm/m | L < 500 mm : 0.05 mm/m, L = 500 – 1000 mm : 0.08 mm/m, L > 1000 mm : 0.1 mm/m |
| Left and right hand screws | KGS 2005 only | KGS 2005 only |
| End machining | To customer requirement | To customer requirement |

Ground ball screws KGS-G

Upon request

Rolled ball screws KGS

Rolled ball screws

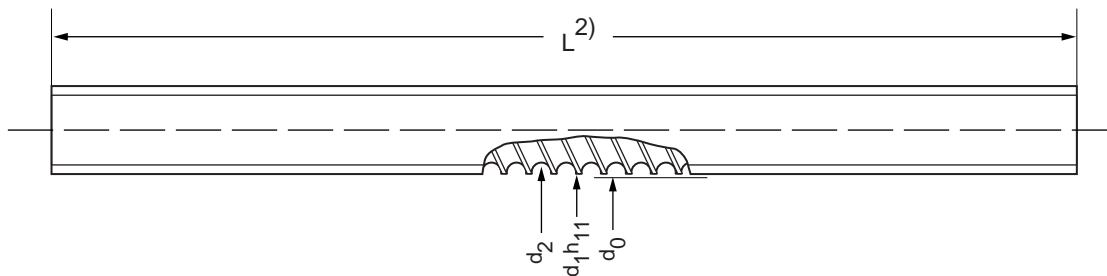
| Type ¹⁾ Diameter (mm) Lead (mm) | Accuracy class ¹⁾ ($\mu\text{m}/300\text{ mm}$) | d_0 | d_1 | d_2 | L^2 max. | Weight (kg/m) | Planar moment of inertia (10^4 mm^4) | Mass moment of inertia (kgm^2/m) |
|--|---|-------|-------|-------|------------|------------------|--|---|
| KGS-1204 | 23 (MICRON <i>Line™</i>) | 12 | 11.6 | 10.2 | 1300 | 0.75 | 0.053 | $1.13 \cdot 10^{-5}$ |
| | 50/200 | 12 | 11.6 | 10.2 | 1300 | 0.75 | 0.053 | $1.13 \cdot 10^{-5}$ |
| KGS-1205 | 23 (MICRON <i>Line™</i>) | 12 | 11.5 | 10.1 | 1300 | 0.75 | 0.051 | $1.13 \cdot 10^{-5}$ |
| | 50/200 | 12 | 11.5 | 10.1 | 1300 | 0.75 | 0.051 | $1.13 \cdot 10^{-5}$ |
| KGS-1605 | 23 (MICRON <i>Line™</i>) | 16 | 15.5 | 12.9 | 3000 | 1.26 | 0.135 | $3.13 \cdot 10^{-5}$ |
| | 50/200 | 16 | 15.5 | 12.9 | 5600 | 1.26 | 0.135 | $3.13 \cdot 10^{-5}$ |
| KGS-1610 | 23 (MICRON <i>Line™</i>) | 16 | 15.4 | 13.0 | 3000 | 1.26 | 0.140 | $3.21 \cdot 10^{-5}$ |
| | 50/200 | 16 | 15.4 | 13.0 | 5600 | 1.26 | 0.140 | $3.21 \cdot 10^{-5}$ |
| KGS-2005 | 23 (MICRON <i>Line™</i>) | 20 | 19.5 | 16.9 | 3000 | 2.04 | 0.400 | $8.46 \cdot 10^{-5}$ |
| | 50/200 | 20 | 19.5 | 16.9 | 5600 | 2.04 | 0.400 | $8.46 \cdot 10^{-5}$ |
| KGS-2020 | 23 (MICRON <i>Line™</i>) | 20 | 19.5 | 16.9 | 3000 | 2.07 | 0.420 | $8.83 \cdot 10^{-5}$ |
| | 50/200 | 20 | 19.5 | 16.9 | 5600 | 2.07 | 0.420 | $8.83 \cdot 10^{-5}$ |
| KGS-2050 | 50/200 | 20 | 19.1 | 16.5 | 5600 | 2.04 | 0.364 | $8.45 \cdot 10^{-5}$ |
| KGS-2505 | 23 (MICRON <i>Line™</i>) | 25 | 24.5 | 21.9 | 3000 | 3.33 | 1.130 | $2.25 \cdot 10^{-4}$ |
| | 50/200 | 25 | 24.5 | 21.9 | 5600 | 3.33 | 1.130 | $2.25 \cdot 10^{-4}$ |
| KGS-2510 | 23 (MICRON <i>Line™</i>) | 25 | 24.5 | 21.9 | 3000 | 3.33 | 1.130 | $2.25 \cdot 10^{-4}$ |
| | 50/200 | 25 | 24.5 | 21.9 | 5600 | 3.33 | 1.130 | $2.25 \cdot 10^{-4}$ |
| KGS-2520 | 23 (MICRON <i>Line™</i>) | 25 | 24.6 | 22.0 | 3000 | 3.33 | 1.150 | $2.25 \cdot 10^{-4}$ |
| | 50/200 | 25 | 24.6 | 22.0 | 5600 | 3.33 | 1.150 | $2.25 \cdot 10^{-4}$ |
| KGS-2525 | 23 (MICRON <i>Line™</i>) | 25 | 24.5 | 22.0 | 3000 | 3.33 | 1.150 | $2.25 \cdot 10^{-4}$ |
| | 50/200 | 25 | 24.5 | 22.0 | 5600 | 3.33 | 1.150 | $2.25 \cdot 10^{-4}$ |
| KGS-2550 | 50/200 | 25 | 24.1 | 21.5 | 5600 | 3.33 | 1.130 | $2.25 \cdot 10^{-4}$ |
| KGS-3205 | 23 (MICRON <i>Line™</i>) | 32 | 31.5 | 28.9 | 3000 | 5.61 | 3.42 | $6.41 \cdot 10^{-4}$ |
| | 50/200 | 32 | 31.5 | 28.9 | 5600 | 5.61 | 3.42 | $6.41 \cdot 10^{-4}$ |
| KGS-3210 | 23 (MICRON <i>Line™</i>) | 32 | 32.7 | 27.3 | 3000 | 5.60 | 2.77 | $6.28 \cdot 10^{-4}$ |
| | 50/200 | 32 | 32.7 | 27.3 | 5600 | 5.60 | 2.77 | $6.28 \cdot 10^{-4}$ |
| KGS-3220 | 23 (MICRON <i>Line™</i>) | 32 | 31.7 | 27.9 | 3000 | 5.61 | 2.97 | $6.40 \cdot 10^{-4}$ |
| | 50/200 | 32 | 31.7 | 27.9 | 5600 | 5.61 | 2.97 | $6.40 \cdot 10^{-4}$ |
| KGS-3240 | 23 (MICRON <i>Line™</i>) | 32 | 30.9 | 28.3 | 3000 | 5.61 | 3.15 | $6.40 \cdot 10^{-4}$ |
| | 50/200 | 32 | 30.9 | 28.3 | 5600 | 5.61 | 3.15 | $6.40 \cdot 10^{-4}$ |
| KGS-4005 | 23 (MICRON <i>Line™</i>) | 40 | 39.5 | 36.9 | 3000 | 9.03 | 9.10 | $1.64 \cdot 10^{-3}$ |
| | 50/200 | 40 | 39.5 | 36.9 | 5600 | 9.03 | 9.10 | $1.64 \cdot 10^{-3}$ |
| KGS-4010 | 23 (MICRON <i>Line™</i>) | 40 | 39.5 | 34.1 | 3000 | 8.33 | 6.72 | $1.42 \cdot 10^{-3}$ |
| | 50/200 | 40 | 39.5 | 34.1 | 5600 | 8.33 | 6.72 | $1.42 \cdot 10^{-3}$ |
| KGS-4020 | 23 (MICRON <i>Line™</i>) | 40 | 39.7 | 35.9 | 3000 | 9.01 | 8.15 | $1.64 \cdot 10^{-3}$ |
| | 50/200 | 40 | 39.7 | 35.9 | 5600 | 9.01 | 8.15 | $1.64 \cdot 10^{-3}$ |
| KGS-4040 | 23 (MICRON <i>Line™</i>) | 40 | 38.9 | 36.3 | 3000 | 9.01 | 8.52 | $1.64 \cdot 10^{-3}$ |
| | 50/200 | 40 | 38.9 | 36.3 | 5600 | 9.01 | 8.52 | $1.64 \cdot 10^{-3}$ |
| KGS-5010 | 50/200 | 50 | 49.5 | 44.1 | 5600 | 13.48 | 18.7 | $3.71 \cdot 10^{-3}$ |
| KGS-5020 | 50/200 | 50 | 49.5 | 44.1 | 5600 | 13.5 | 18.6 | $3.70 \cdot 10^{-3}$ |
| KGS-6310 | 50/200 | 63 | 62.5 | 57.1 | 5600 | 22.04 | 52.5 | $9.89 \cdot 10^{-3}$ |
| KGS-6320 | 50/200 | 63 | 62.5 | 57.1 | 5600 | 22.03 | 52.2 | $9.84 \cdot 10^{-3}$ |
| KGS-8010 | 50/200 | 80 | 79.5 | 74.1 | 5600 | 36.41 | 149 | $2.69 \cdot 10^{-2}$ |
| KGS-2005 LH | 50/200 | 20 | 19.5 | 16.9 | 5600 | 2.04 | 0.400 | $8.46 \cdot 10^{-5}$ |

¹⁾ Screws with a pitch accuracy of 200 $\mu\text{m}/300\text{ mm}$ are not suitable for the use of pre-loaded nut units.

²⁾ For 5600mm: Delivered length 6000; both ends soft-annealed over a length of 200 mm.

Order code: p. 36

Rolled ball screws technical data



Ball nuts

Ball nuts can be considered as the heart of the ball screw drive. The quality of the nut is decisive in determining the running properties of the complete screw drive assembly.

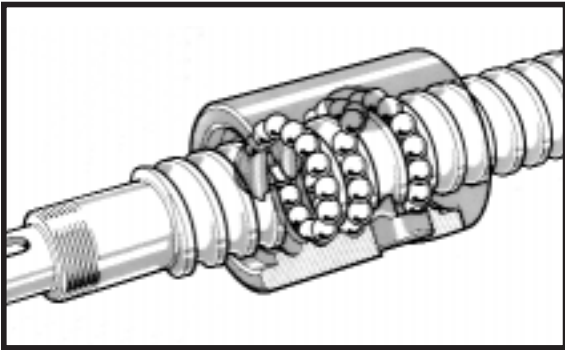
The ball tracks, grooves and faces of the hardened nut blanks are ground in a single setting, thereby guaranteeing outstanding quality.

Flanged ball nuts KGF

Cylindrical ball nuts KGM

- With mounting holes in the case of flanged nuts (KGF) or feather-key grooves for cylindrical nuts (KGM)
- Can be combined to form zero-backlash pre-loaded nut units
- Material steel 1.7131 (ESP 65) or 1.3505 (100 Cr 6)
- With different ball return systems that are optimally adapted to the screw diameter and screw pitch
- With profiled wiper rings to reduce loss of lubricant and remove dirt

Ball return systems



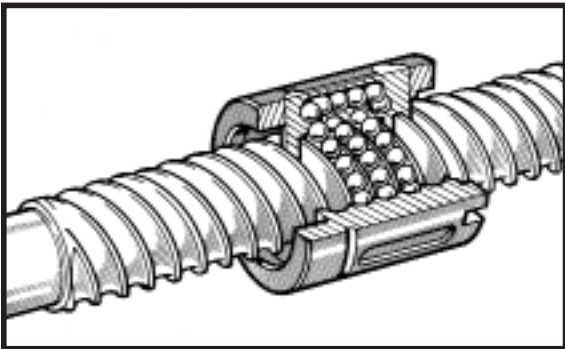
Single return system—E

- For single-start screw drives

The balls are lifted out of the track after every rotation of the screw with respect to the nut and are moved back one thread pitch.

The guide piece, made of glass-fiber-reinforced plastic, has been specially developed to ensure perfect guidance and low ball wear.

This design provides exceptional silent running and minimal radial dimensions. The most common thread leads are 5 and 10 mm.

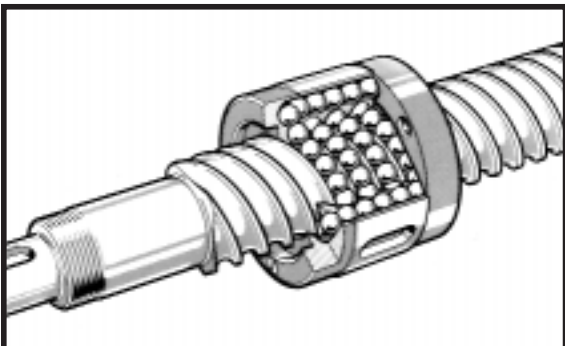


Channel return system—K

- For single and multi-start screw drives with higher feed speeds

The balls are returned after each rotation. However, due to the multi-start design, a number of thread pitches have to be skipped: for example, with 4-start screws, the balls will return 3 pitches at a time. This need is met by special return channels integrated in the nuts. Multi-start nuts therefore have a larger outside diameter than single-start nuts.

We supply this ball screw drive with 10 and 20 mm leads.



Duct return system—S

- For multi-start screws

The duct return system is used on multi start screws. This all-metal system returns the balls through specially integrated ducts in the walls of the nut.

Presently, we produce multi-start ball screw drives with 20, 25, 40 and 50 mm leads.

Ball nuts

Ball nut unit—pre-loaded

Thanks to their low friction and low rate of wear, ball nuts can be adjusted or pre-loaded so as to be free of backlash. Within its standard product range, Precision Technology USA supplies complete nut units with “O” pre-loading.

“O” Pre-loading: With this type of pre-loading, the lines of forces run in a rhomboidal pattern (O-shaped). The nuts are pressed apart by the pre-loading force. This configuration offers particularly high rigidity against tilting and thus requires perfect alignment of all components during assembly.

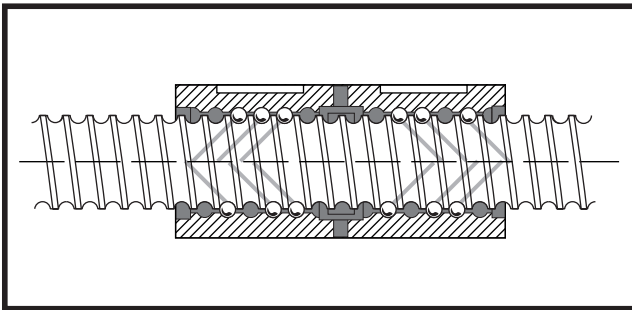
The standard pre-loading is equal to 10% of the dynamic load rating C. On request, we can supply other pre-loading values.

Note: Pre-loading to zero backlash is possible only with accuracy $\leq 50 \mu\text{m}/300 \text{ mm}$ and screw pitches $P < 20 \text{ mm}$.

With pitch accuracies $> 50 \mu\text{m}/300 \text{ mm}$ and screw pitches of 20, 40 or 50 mm, the unit can only be set to low backlash.

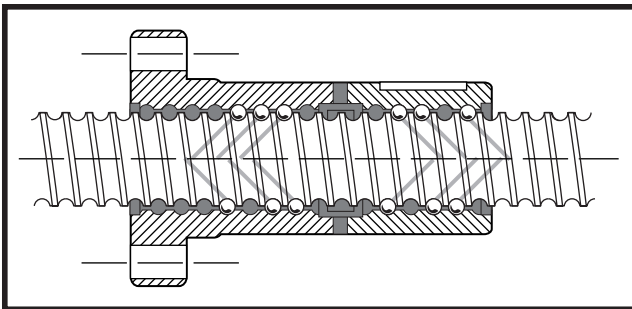
The total nut length must be increased by as much as 10 mm as a consequence of the inclusion of a pretensioning ring.

Pre-loading variants



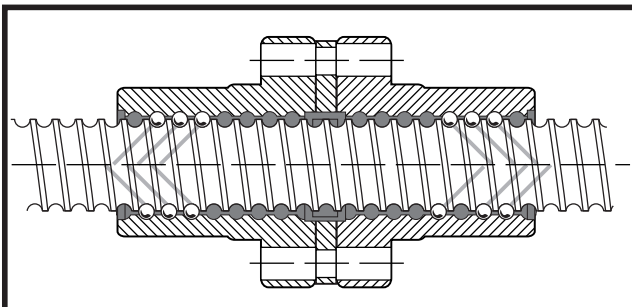
KGT-MM

Ball screw drive with two KGM cylindrical nuts and “O” pre-loading. Only one of the two keyways transmits the drive torque.



KGT-FM

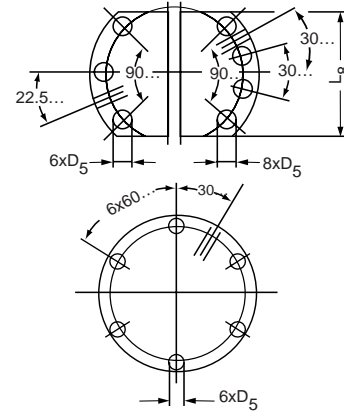
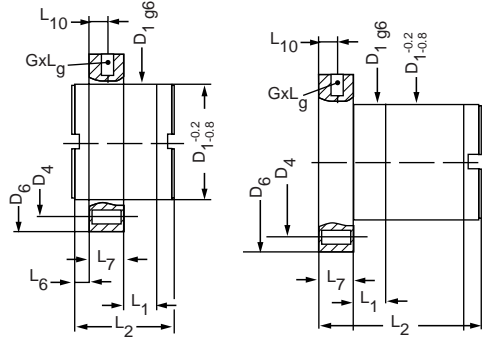
Ball screw drive with one KGF flanged nut and one KGM cylindrical nut with “O” pre-loading.



KGT-FF

Ball screw drives with two KGF flanged nuts with “O” pre-loading.

Flanged ball nuts—KGF



| Type Diameter (mm) Lead (mm) | Form Pattern | Hole Pattern | d ₁ ¹⁾ | d ₄ | H ₅ | D ₆ | L ₁ | L ₂ | L ₆ | L ₇ | L ₈ | L ₉ | L ₁₀ | Lubrication HoleG | Axial-backlash max. (mm) | No. of guides | Load rating [kN] ³⁾ | | |
|------------------------------------|-----------------|-----------------|------------------------------|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|----------------------|-----------------------------|------------------|--------------------------------|-----------------|-------------------|
| | | | | | | | | | | | | | | | | | C ⁴⁾ | C ⁵⁾ | C _{0=oa} |
| KGF-N 1605 RH-EE | E | 3 | 28 | 38 | 5.5 | 48 | 8 | 44 | - | 12 | - | 8 | 6 | M6 | 0.08 | 3 | 12.0 | 7.0 | 12.7 |
| KGF-D 1605 RH-EE | E | 1 | 28 | 38 | 5.5 | 48 | 10 | 42 | - | 10 | 40 | 10 | 5 | M6 | 0.08 | 3 | 12.0 | 7.0 | 12.7 |
| KGF-D 1610 RH-EE | E | 1 | 28 | 38 | 5.5 | 48 | 10 | 55 | - | 10 | 40 | 10 | 5 | M6 | 0.08 | 6 | 23.0 | 12.0 | 26.0 |
| KGF-N 2005 RH-EE | E | 3 | 32 | 45 | 7 | 55 | 8 | 44 | - | 12 | - | 8 | 6 | M6 | 0.08 | 3 | 14.0 | 8.0 | 17.0 |
| KGF-D 2005 RH-EE | E | 1 | 36 | 47 | 6.6 | 58 | 10 | 42 | - | 10 | 44 | 10 | 5 | M6 | 0.08 | 3 | 14.0 | 8.0 | 17.0 |
| KGF-N 2020 RH-EE | S | 3 | 35 | 50 | 7 | 62 | 4 | 30 | 8 | 10 | - | 8 | 5 | M6 | 0.08 | 4 | 12.0 | 9.0 | 19.2 |
| KGF-N 2050 RH-EE | S | 3 | 35 | 50 | 7 | 62 | 10 | 56 | 9 | 10 | - | 8 | 5 | M6 | 0.15 | 5 | 18.0 | 11.0 | 22.0 |
| KGF-N 2505 RH-EE | E | 3 | 38 | 50 | 7 | 62 | 8 | 46 | - | 14 | - | 8 | 7 | M6 | 0.08 | 3 | 15.0 | 9.5 | 22.4 |
| KGF-D 2505 RH-EE | E | 1 | 40 | 51 | 6.6 | 62 | 10 | 42 | - | 10 | 48 | 10 | 5 | M6 | 0.08 | 3 | 15.0 | 9.5 | 22.4 |
| KGF-D 2510 RH-EE | E | 1 | 40 | 51 | 6.6 | 62 | 16 | 55 | - | 10 | 48 | 10 | 5 | M6 | 0.08 | 3 | 17.5 | 10.0 | 25.0 |
| KGF-D 2520 RH-EE | S | 1 | 40 | 51 | 6.6 | 62 | 4 | 35 | 10.5 | 10 | 48 | 8 | 5 | M6 | 0.15 | 4 | 19.0 | 10.5 | 23.5 |
| KGF-D 2525 RH-EE | S | 1 | 40 | 51 | 6.6 | 62 | 9 | 35 | 8 | 10 | -6) | 8 | 5 | M6 | 0.08 | 5 | 21.0 | 12.5 | 31.0 |
| KGF-D 2550 RH-EE | S | 1 | 40 | 51 | 6.6 | 62 | 10 | 38 | 10.5 | 10 | 48 | 8 | 5 | M6 | 0.15 | 5 | 22.5 | 13.0 | 29.0 |
| KGF-N 3205 RH-EE | E | 3 | 45 | 58 | 7 | 70 | 10 | 59 | - | 16 | - | 8 | 8 | M6 | 0.08 | 5 | 24.0 | 17.0 | 49.0 |
| KGF-D 3205 RH-EE | E | 1 | 50 | 65 | 9 | 80 | 10 | 55 | - | 12 | 62 | 10 | 6 | M6 | 0.08 | 5 | 24.0 | 17.0 | 49.0 |
| KGF-N 3210 RH-EE | E | 3 | 53 | 68 | 7 | 80 | 10 | 73 | - | 16 | - | 8 | 8 | M8x1 | 0.08 | 3 | 44.0 | 26.5 | 53.0 |
| KGF-D 3210 RH-EE | E | 1 | 53 ²⁾ | 65 | 9 | 80 | 16 | 69 | - | 12 | 62 | 10 | 6 | M8x1 | 0.08 | 3 | 44.0 | 26.5 | 53.0 |
| KGF-D 3220 RH-EE | E | 1 | 53 ²⁾ | 65 | 9 | 80 | 16 | 80 | - | 12 | 62 | 10 | 6 | M6 | 0.08 | 4 | 42.5 | 24.0 | 61.0 |
| KGF-N 3240 RH-EE | S | 3 | 53 | 68 | 7 | 80 | 14 | 45 | 7.5 | 16 | - | 10 | 8 | M6 | 0.08 | 4 | 17.0 | 11.5 | 32.0 |
| KGF-N 4005 RH-EE | E | 3 | 53 | 68 | 7 | 80 | 10 | 59 | - | 16 | - | 8 | 8 | M6 | 0.08 | 5 | 26.0 | 19.0 | 63.5 |
| KGF-D 4005 RH-EE | E | 2 | 63 | 78 | 9 | 93 | 10 | 57 | - | 14 | 70 | 10 | 7 | M6 | 0.08 | 5 | 26.0 | 19.0 | 63.5 |
| KGF-N 4040 RH-EE | E | 3 | 63 | 78 | 9 | 95 | 10 | 73 | - | 16 | - | 8 | 8 | M8x1 | 0.08 | 3 | 50.0 | 30.0 | 70.0 |
| KGF-D 4010 RH-EE | E | 2 | 63 | 78 | 9 | 93 | 16 | 71 | - | 14 | 70 | 10 | 7 | M8x1 | 0.08 | 3 | 50.0 | 30.0 | 70.0 |
| KGF-D 4020 RH-EE | E | 2 | 63 | 78 | 9 | 93 | 16 | 80 | - | 14 | 70 | 10 | 7 | M8x1 | 0.08 | 4 | 44.5 | 27.0 | 77.0 |
| KGF-D 4040 RH-EE | S | 2 | 63 | 78 | 9 | 93 | 16 | 85 | 7.5 | 14 | 6) | 10 | 7 | M8x1 | 0.08 | 8 | 42.0 | 26.5 | 93.0 |
| KGF-N 5010 RH-EE | E | 3 | 72 | 90 | 11 | 110 | 10 | 97 | - | 18 | - | 8 | 9 | M8x1 | 0.08 | 5 | 78.0 | 55.0 | 153.0 |
| KGF-D 5010 RH-EE | E | 2 | 75 | 93 | 11 | 110 | 16 | 95 | - | 16 | 85 | 10 | 8 | M8x1 | 0.08 | 5 | 78.0 | 55.0 | 153.0 |
| KGF-D 5020 RH-EE | E | 2 | 85 ²⁾ | 103 ²⁾ | 11 | 125 | 22 | 95 | - | 18 | 95 | 10 | 9 | M8x1 | 0.08 | 4 | 82.0 | 48.0 | 137.0 |
| KGF-N 6310 RH-EE | E | 3 | 85 | 105 | 11 | 125 | 10 | 99 | - | 20 | - | 8 | 10 | M8x1 | 0.08 | 5 | 86.0 | 60.0 | 200.0 |
| KGF-D 6310 RH-EE | E | 2 | 90 | 108 | 11 | 125 | 16 | 97 | - | 18 | 95 | 10 | 9 | M8x1 | 0.08 | 5 | 86.0 | 60.0 | 200.0 |
| KGF-D 6320 RH-EE | E | 2 | 95 ²⁾ | 115 | 13.5 | 135 | 25 | 99 | - | 20 | 100 | 10 | 10 | M8x1 | 0.08 | 4 | 85.0 | 52.5 | 170.0 |
| KGF-N 8010 RH-EE | E | 3 | 105 | 125 | 14 | 145 | 10 | 101 | - | 22 | - | 8 | 11 | M8x1 | 0.08 | 5 | 93.0 | 69.0 | 260.0 |
| KGF-D 2005 LH-EE | E | 1 | 36 | 47 | 6.6 | 58 | 10 | 42 | - | 10 | 44 | 10 | 5 | M6 | 0.08 | 3 | 16.5 | 9.0 | 19.0 |

1) D1 conforming to DIN 69051

2) D1 not conforming to DIN 69051

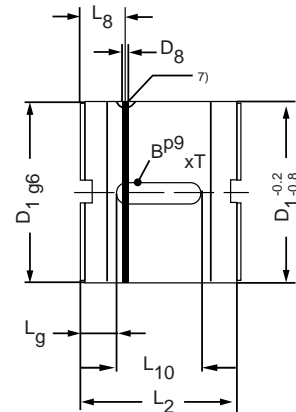
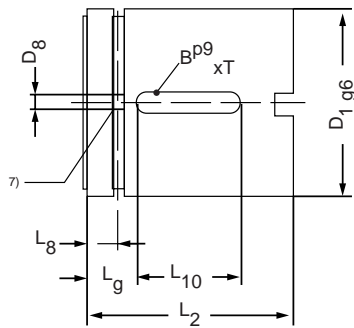
3) In the case of screws of pitch accuracy 200 µm/300 mm, only 75% of the specified values are permissible.

4) Dynamic load rating conforming to DIN 69051 Part 4 Draft 1978.

5) Dynamic load rating conforming to DIN 69051 Part 4 Draft 1989.

6) Round flanged.

Cylindrical ball location nuts—KGM



| Type | Form | D ₁ ¹⁾ | D ₈ | L ₂ | L ₈ | L _g | L ₁₀ | B x T | Axial-backlash max. (mm) | No. of guides | C ⁴⁾ | Load rating [kN] ³⁾ C ⁵⁾ | C _{0=oa} |
|------------------|------|------------------------------|----------------|----------------|----------------|----------------|-----------------|-------|-----------------------------|------------------|-----------------|---|-------------------|
| Diameter (mm) | | | | | | | | | | | | | |
| Lead (mm) | | | | | | | | | | | | | |
| KGM-N 1204 RH-OO | E | 20 ⁶⁾ | - | 24 | - | 5 | 14 | 3x1.8 | 0.08 | 3 | 6.0 | 3.4 | 6.5 |
| KGM-N 1205 RH-OO | E | 20 ⁶⁾ | - | 24 | - | 5 | 14 | 3x1.8 | 0.08 | 3 | 6.0 | 3.4 | 6.5 |
| KGM-D 1605 RH-EE | E | 28 | 3 | 34 | 7 | 7 | 20 | 5x2 | 0.08 | 3 | 12.5 | 7.0 | 12.7 |
| KGM-D 1610 RH-EE | E | 28 | 3 | 50 | 7 | 15 | 20 | 5x2 | 0.08 | 6 | 23.0 | 12.0 | 26.0 |
| KGM-N 2005 RH-EE | E | 32 | 3 | 34 | 7 | 7 | 20 | 5x2 | 0.08 | 3 | 14.0 | 8.0 | 17.0 |
| KGM-D 2005 RH-EE | E | 36 | 3 | 34 | 7 | 7 | 20 | 5x2 | 0.08 | 3 | 14.0 | 8.0 | 17.0 |
| KGM-N 2020 RH-EE | S | 35 | 1.5 | 30 | 11.5 | 9 | 12 | 5x3 | 0.08 | 4 | 12.0 | 9.0 | 19.2 |
| KMG-N 2050 RH-EE | S | 35 | 1.5 | 56 | 16 | 18 | 20 | 5x3 | 0.15 | 5 | 18.0 | 11.0 | 22.0 |
| KGM-N 2505 RH-EE | E | 38 | 3 | 34 | 7 | 7 | 20 | 5x2 | 0.08 | 3 | 15.0 | 9.5 | 22.4 |
| KGM-D 2505 RH-EE | E | 40 | 3 | 34 | 7 | 7 | 20 | 5x2 | 0.08 | 3 | 15.0 | 9.5 | 22.4 |
| KGM-D 2510 RH-EE | E | 40 | 3 | 45 | 7.5 | 12.5 | 20 | 5x2 | 0.08 | 3 | 17.5 | 10.0 | 25.0 |
| KGM-D 2520 RH-EE | S | 40 | 1.5 | 35 | 14 | 11.5 | 12 | 5x3 | 0.15 | 4 | 19.0 | 10.5 | 23.5 |
| KGM-D 2525 RH-EE | S | 40 | 1.5 | 35 | 11.5 | 11 | 13 | 5x3 | 0.08 | 5 | 21.0 | 12.5 | 31.0 |
| KGM-D 2550 RH-EE | S | 40 | 1.5 | 58 | 17 | 19 | 20 | 5x3 | 0.15 | 5 | 22.5 | 13.0 | 29.0 |
| KGM-N 3205 RH-EE | E | 45 | 3 | 45 | 7.5 | 8 | 30 | 6x2.5 | 0.08 | 5 | 24.0 | 17.0 | 49.0 |
| KGM-D 3205 RH-EE | E | 50 | 3 | 45 | 7.5 | 8 | 30 | 6x2.5 | 0.08 | 5 | 24.0 | 17.0 | 49.0 |
| KGM-N 3210 RH-EE | E | 53 | 4 | 60 | 10 | 15 | 30 | 6x2.5 | 0.08 | 3 | 44.0 | 26.5 | 53.0 |
| KGM-N 3220 RH-EE | E | 53 | 3 | 70 | 7.5 | 20 | 30 | 6x2.5 | 0.08 | 4 | 42.5 | 24.0 | 61.0 |
| KGM-N 3240 RH-EE | S | 53 ²⁾ | 1.5 | 45 | 13 | 10 | 25 | 6x4 | 0.08 | 4 | 17.0 | 11.5 | 32.0 |
| KGM-N 4005 RH-EE | E | 53 | 3 | 45 | 7.5 | 8 | 30 | 6x2.5 | 0.08 | 5 | 26.0 | 19.0 | 63.5 |
| KGM-D 4005 RH-EE | E | 63 | 3 | 45 | 7.5 | 8 | 30 | 6x2.5 | 0.08 | 5 | 26.0 | 19.0 | 63.5 |
| KGM-D 4010 RH-EE | E | 63 | 4 | 60 | 10 | 15 | 30 | 6x2.5 | 0.08 | 3 | 50.0 | 30.0 | 70.0 |
| KGM-D 4020 RH-EE | E | 63 | 3 | 70 | 7.5 | 20 | 30 | 6x2.5 | 0.08 | 4 | 44.5 | 27.0 | 77.0 |
| KGM-D 4040 RH-EE | S | 63 | 1.5 | 85 | 15 | 27.5 | 30 | 6x3.5 | 0.08 | 8 | 42.0 | 26.5 | 93.0 |
| KGM-N 5010 RH-EE | E | 72 | 4 | 82 | 11 | 23 | 36 | 6x2.5 | 0.08 | 5 | 78.0 | 55.0 | 153.0 |
| KGM-D 5010 RH-EE | E | 75 | 4 | 82 | 11 | 23 | 36 | 6x2.5 | 0.08 | 5 | 78.0 | 55.0 | 153.0 |
| KGM-N 5020 RH-EE | E | 85 | 4 | 82 | 10 | 23 | 36 | 6x2.5 | 0.08 | 4 | 82.0 | 48.0 | 137.0 |
| KGM-N 6310 RH-EE | E | 85 | 4 | 82 | 11 | 23 | 36 | 6x2.5 | 0.08 | 5 | 86.0 | 60.0 | 200.0 |
| KGM-D 6310 RH-EE | E | 90 | 4 | 82 | 11 | 23 | 36 | 6x2.5 | 0.08 | 5 | 86.0 | 60.0 | 200.0 |
| KGM-D 6320 RH-EE | E | 95 | 4 | 82 | 10 | 23 | 36 | 6x2.5 | 0.08 | 4 | 85.0 | 52.5 | 170.0 |
| KGM-N 8010 RH-EE | E | 105 | 4 | 82 | 11 | 23 | 36 | 8x3.1 | 0.08 | 5 | 93.0 | 69.0 | 260.0 |
| KGM-D 2005 LH-EE | E | 36 | 3 | 34 | 7 | 7 | 20 | 5x2 | 0.08 | 3 | 16.5 | 9.0 | 19.0 |

1) KGM-D: The diameter D1 corresponds to DIN 69051.

2) Dimension D1 tolerance is -1/-1.5 as opposed to a normal tolerance of -0.2/-0.8.

3) In the case of screws of pitch accuracy class 200 mm/300 mm, only 75% of the specified values are permissible.

4) Dynamic load rating conforming to DIN 69051 Part 4 Draft 1978.

5) Dynamic load rating conforming to DIN 69051 Part 4 Draft 1989.

6) Nut without wiper.

7) Position of grease holes not defined on circumference.