INTRODUCING: Helix[®] K-Style TAB Anti-Backlash Nut



Torsional Anti-Backlash (TAB) K-Style

- High Stiffness
- Low Torque
- Low Friction
- Wear Compensating
- Full Size Range Ø 1/4" 3/4" screws

The Helix K-Style anti-backlash nut

This is the newest design in our series of zero backlash and wear compensating nuts. The Torsional Anti-Backlash (TAB) nut design offers high axial stiffness and extremely low drag torque. The nuts are rated for moderate to high dynamic and static load ratings.

Made from our Helix[®] proprietary self-lubricating polyacetal with Teflon[®] micro powder, this nut is available in a full range of leadscrew sizes from ¼" (6mm) to ¾" (20mm) diameters on an extensive list of leads from less than .039" (1mm) to greater than 2.00" (50mm). The leadscrews for these nuts are made from 300 series stainless or 4140 alloy steel with optional

Teflon[®] coating finish for reduced friction, increased efficiency and longer nut life. This nut offers reduced components and ease of assembly with flanges and thread mounts interchangeable with the competition.

Custom mounting configurations are also available. The design has a shortened nut length to reduce the OAL or increase stroke length for a given leadscrew. Modifications can be made as required and this low torque/high axial stiffness design includes a unique machined version for applications that require a smaller nut size due to space limitations.

Nut Selection Guide

NUT STYLE	COST	LOAD	STIFFNESS	TORQUE
Axial Anti-backlash	low	medium	low	medium
Radial Anti-backlash	low	medium	medium	low
Torsional Anti-backlash	medium	high	high	very low

CALL TODAY FOR A QUICK & EASY QUOTE

www.helixlinear.com











	•			-				-	
	Screw Ø (A) in.	Nut Ø (B) in.	Nut Length (C) in.	Flange Ø (D) in.	Flange Thickness (E) in.	Mounting Hole Ø (F) in.	Bolt Circle Ø (G) in.	Dynamic Load (lbs.) in.	Max. Drag Torque (OZ-IN)
	.250	.70	1.6	1.12	.18	.144	.875	20	3
(H:	.312	.87	1.8	1.50	.25	.203	1.125	30	3
(ind	.375	.87	1.8	1.50	.25	.203	1.125	30	3
ED	.437	1.06	2.1	1.75	.25	.220	1.406	50	6
ANG	.500	1.06	2.1	1.75	.25	.220	1.406	75	6
FL	.562	1.30	2.5	1.75	.31	.220	1.750	90	6
(.625	1.30	2.5	1.75	.31	.220	1.750	150	6
	.750	1.63	2.8	2.38	.31	.220	2.000	250	7
	Screw Ø (A) in.	Nut Ø (B) in.	Nut Length (C) in.	Hex Across Flats Ø (H) in.	Hex Thickness (J) in.	Thread Length Ø (K) in.	Thread Size Ø (L) in.	Dynamic Load (lbs.) in.	Max. Drag Torque (OZ-IN)
	.250	.70	1.6	.69	.18	.25	9/16-18	20	3
incl	.312	.87	1.8	.88	.25	.37	3/4-20	30	3
ED (.375	.87	1.8	.88	.25	.37	3/4-20	30	3
THREADE	.437	1.06	2.1	1.00	.25	.37	15/16-16	50	6
	.500	1.06	2.1	1.00	.25	.37	1 1/8-16	75	6
	.562	1.30	2.5	1.25	.31	.37	1 1/8-16	90	6
	.625	1.30	2.5	1.25	.31	.37	1 1/8-16	150	6
	.750	1.63	2.8	1.56	.32	.37	1 3/8-16	250	7
	Screw Ø (A) mm	Nut Ø (B) mm	Nut Length (C) mm	Flange Ø (D) mm	Flange Thickness (E) mm	Mounting Hole Ø (F) mm	Bolt Circle (G) mm	Dynamic Load (kg.)	Max. Drag Torque (N-m)
	Screw Ø (A) mm 6	Nut Ø (B) mm 17.8	Nut Length (C) mm 40.6	Flange Ø (D) mm 28.6	Flange Thickness (E) mm 4.8	Mounting Hole Ø (F) mm 3.7	Bolt Circle (G) mm 22.2	Dynamic Load (kg.) 9	Max. Drag Torque (N-m) .025
ric)	Screw Ø (A) mm 6 8	Nut Ø (B) mm 17.8 22.1	Nut Length (C) mm 40.6 45.7	Flange Ø (D) mm 28.6 38.1	Flange Thickness (E) mm 4.8 6.4	Mounting Hole Ø (F) mm 3.7 5.2	Bolt Circle (G) mm 22.2 28.6	Dynamic Load (kg.) 9 13	Max. Drag Torque (N-m) .025 .025
metric)	Screw Ø (A) mm 6 8 10	Nut Ø (B) mm 17.8 22.1 22.1	Nut Length (C) mm 40.6 45.7 45.7	Flange Ø (D) mm 28.6 38.1 38.1	Flange Thickness (E) mm 4.8 6.4 6.4	Mounting Hole Ø (F) mm 3.7 5.2 5.2	Bolt Circle (G) mm 22.2 28.6 28.6	Dynamic Load (kg.) 9 13 13	Мах. Drag Torque (N-m) .025 .025 .025
ED (metric)	Screw Ø (A) mm 6 8 10 12	Nut Ø (B) mm 17.8 22.1 22.1 26.9	Nut Length (C) mm 40.6 45.7 45.7 53.3	Hange Ø (D) mm 28.6 38.1 38.1 44.5	Flange Thickness (E) mm 4.8 6.4 6.4 6.4 6.4	Mounting Hole Ø (F) mm 3.7 5.2 5.2 5.2 5.6	Bolt Circle (G) mm 22.2 28.6 28.6 35.7	Dynamic Load (kg.) 9 13 13 34	Max. Drag Torque (N-m) .025 .025 .025 .025 .025 .025
NGED (metric)	Screw Ø (A) mm 6 8 10 12 14	Nut Ø (B) mm 17.8 22.1 22.1 26.9 33.0	Nut Length (C) mm 40.6 45.7 45.7 53.3 63.5	Flange Ø (D) mm 28.6 38.1 38.1 44.5 44.5	Flange Thickness (E) mm 4.8 6.4 6.4 6.4 8.0	Summing Hole Ø (F) mm 3.7 5.2 5.2 5.6	Bolt Circle (G) mm 22.2 28.6 28.6 35.7 44.5	Dynamic Load (kg.) 9 13 34 41	Max. Drag Torque (N-m) .025 .025 .025 .025 .025 .025 .025 .025 .025 .025 .025 .025 .025 .025 .025 .040
FLANGED (metric)	Screw Ø (A) mm 6 8 10 12 14 14	Nut Ø (B) mm 17.8 22.1 22.1 26.9 33.0 33.0	Nut Length (C) mm 40.6 45.7 53.3 63.5 63.5	Hange Ø (D) mm 28.6 38.1 38.1 44.5 44.5 44.5	Flange Thickness (E) mm 4.8 6.4 6.4 6.4 8.0 8.0	Sounding Hole Ø (F) mm 3.7 5.2 5.2 5.6 5.6 5.6	Bolt Circle (G) mm 22.2 28.6 28.7 44.5 44.5	Dynamic Load (kg.) 9 13 34 41 68	Max. Drag Torque (N-m) .025 .025 .025 .025 .025 .040 .040 .040
FLANGED (metric)	Screw Ø (A) mm 6 8 10 12 14 14 16 18	Nut Ø (B) mm 17.8 22.1 22.1 26.9 33.0 33.0 41.4	Nut Length (C) mm 40.6 45.7 45.7 63.5 63.5 71.1	Hange Ø (D) mm 28.6 38.1 38.1 44.5 44.5 60.5	Flange Thickness (E) mm 4.8 6.4 6.4 8.0 8.0 8.0 8.0	Solution Hole Ø (F) mm 3.7 5.2 5.2 5.6 5.6 5.6 5.6 5.6 5.6 5.6	Bolt Circle (G) mm 22.2 28.6 28.7 44.5 44.5 50.8	Dynamic Load (kg.) 9 13 34 41 68 113	Max. Drag Torque (N-m) .025 .025 .025 .025 .025 .040 .040 .040 .040 .040
FLANGED (metric)	Screw Ø (A) mm 6 8 10 12 14 14 16 18 20	Nut Ø (B) mm 17.8 22.1 26.9 33.0 33.0 41.4 41.4	Nut Length (C) mm 40.6 45.7 53.3 63.5 63.5 71.1 71.1	Hange Ø (D) mm 28.6 38.1 38.1 44.5 44.5 60.5 60	Flange Thickness (E) mm 4.8 6.4 6.4 6.4 8.0 8.0 8.0 8.0 8.0	Sounding Hole Ø (F) mm 3.7 5.2 5.2 5.6 5.6 5.6 5.6 5.6 5.6 5.6 5.6 5.6 5.6	Bolt Circle (G) mm 22.2 28.6 28.7 44.5 50.8 50.8	Dynamic Load (kg.) 9 13 34 41 68 113 113	Max. Drag Torque (N-m) .025 .025 .025 .025 .040 .040 .040 .040 .040 .040 .040 .050
FLANGED (metric)	Screw Ø (A) mm 6 8 10 12 14 16 18 20 Screw Ø (A) mm	Nut Ø (B) mm 17.8 22.1 22.1 26.9 33.0 33.0 41.4 41.4 41.4	Nut Length (C) mm 40.6 45.7 45.7 53.3 63.5 71.1 71.1 Nut Length (C) mm	Hange Ø (D) mm 28.6 38.1 38.1 44.5 44.5 60.5 60 Hex Across Flats (H) mm	Flange Thickness (E) mm 4.8 6.4 6.4 6.4 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0	Mounting Hole Ø (F) mm 3.7 5.2 5.2 5.6 5.6 5.6 5.6 5.6 5.6 5.6 5.6 5.6 5.6 5.6	Bolt Circle (G) mm 22.2 28.6 28.7 44.5 50.8 50.8 50.8	Dynamic Load (kg.) 9 13 13 41 68 113 113 0 113 0 113 113 113 113 113	Max. Drag Torque (N-m) .025 .025 .025 .025 .040 .040 .040 .040 .040 .040 .040 .040 .050
ic) FLANGED (metric)	Screw Ø (A) mm 6 8 10 12 14 14 16 18 20 Screw Ø (A) mm 6	Nut Ø (B) mm 17.8 22.1 22.1 26.9 33.0 33.0 41.4 41.4 Nut Ø (B) mm 17.8	Nut Length (C) mm 40.6 45.7 53.3 63.5 63.5 71.1 71.1 Nut Length (C) mm 40.6	Hange Ø (D) mm 28.6 38.1 38.1 44.5 44.5 60.5 60 Hex Across Flats (H) mm 17.5	Flange Thickness (E) mm 4.8 6.4 6.4 6.4 8.0 8.0 8.0 8.0 8.0 8.0 4.8	Mounting Hole Ø (F) mm 3.7 5.2 5.2 5.6 6.4	Bolt Circle (G) mm 22.2 28.6 28.7 44.5 50.8 50.8 50.8 50.8 9/16-18	Dynamic Load (kg.) 9 13 13 34 41 68 113 113 0ynamic Load (kg.) 9	Max. Drag Torque (N-m) .025 .025 .025 .025 .040 .040 .040 .040 .040 .040 .040 .050 .050 Max. Drag Torque (N-m) .025
netric) FLANGED (metric)	Screw Ø (A) mm 6 8 10 12 12 14 16 18 20 Screw Ø (A) mm 6 8	Nut Ø (B) mm 17.8 22.1 22.1 26.9 33.0 41.4 41.4 17.8 17.8 22.1	Nut Length (C) mm 40.6 45.7 45.7 53.3 63.5 71.1 71.1 Nut Length (C) mm 40.6 45.7	Hange Ø (D) mm 28.6 38.1 38.1 44.5 44.5 60.5 60 Hex Across Flats (H) mm 17.5 22.4	Flange Thickness (E) mm 4.8 6.4 6.4 6.4 8.0 8.0 8.0 8.0 8.0 8.0 4.8 6.4	Mounting Hole Ø (F) mm 3.7 5.2 5.2 5.6 6.4 9.5	Bolt Circle (G) mm 22.2 28.6 28.7 35.7 44.5 50.8 50.8 50.8 50.8 9/16-18 3/4-20	Dynamic Load (kg.) 9 13 13 34 41 68 113 113 0 9 13 34 13 13 13 13 13 13 13 13 13	Max. Drag Torque (N-w) .025 .025 .025 .025 .040 .050 Max. Drag Torque (N-m) .025
D (metric) FLANGED (metric)	Screw Ø (A) mm 6 8 10 12 14 14 16 18 20 Screw Ø (A) mm 6 8 8 10	Nut Ø (B) mm 17.8 22.1 22.1 26.9 33.0 41.4 41.4 17.8 22.1 23.0 23.0 23.0 23.0 22.1	Nut Length (C) mm 40.6 45.7 53.3 63.5 63.5 71.1 71.1 Nut Length (C) mm 40.6 45.7	Hange Ø (D) mm 28.6 38.1 38.1 44.5 44.5 60.5 60 Hex Across Flats (H) mm 17.5 22.4 22.4	Hange Thickness (E) mm 4.8 6.4 6.4 6.4 8.0 8.0 8.0 8.0 8.0 8.0 4.8 6.4	Mounting Hole Ø (F) mm 3.7 5.2 5.2 5.6 5.6 5.6 5.6 5.6 5.6 5.6 6.4 9.5 9.5	Bolt Circle (G) mm 22.2 28.6 28.7 44.5 50.8 50.8 50.8 9/16-18 3/4-20 3/4-20	Dynamic Load (kg.) 9 13 13 34 41 68 113 113 0ynamic Load (kg.) 9 13 13	Max. Drag Torque (N-w) .025 .025 .025 .025 .040 .050 .025 .025 .025
ADED (metric) FLANGED (metric)	Screw Ø (A) mm 6 8 10 12 14 14 16 18 20 Screw Ø (A) mm 6 8 8 8 10 12	Nut Ø (B) mm 17.8 22.1 26.9 33.0 33.0 41.4 41.4 17.8 22.1 26.9 33.0 41.4 21.1 22.1 22.1 22.1 22.1 22.1 26.9	Nut Length (C) mm 40.6 45.7 53.3 63.5 63.5 71.1 71.1 Nut Length (C) mm 40.6 45.7 53.3	Hange Ø (D) mm 28.6 38.1 38.1 44.5 44.5 60.5 60 Hex Across Flats (H) mm 17.5 22.4 22.4 25.4	Hange Thickness (E) mm 4.8 6.4 6.4 6.4 8.0 8.0 8.0 8.0 8.0 8.0 4.8 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4	Mounting Hole Ø (F) mm 3.7 5.2 5.2 5.6 5.6 5.6 5.6 5.6 5.6 6.4 9.5 9.5	Bolt Circle (G) mm 22.2 28.6 28.7 44.5 50.8 50.8 9/16-18 3/4-20 3/4-20 15/16-16	Dynamic Load (kg.) 9 13 13 34 41 68 113 113 0ynamic Load (kg.) 9 13 13 13 113 113 113 13 13 34	Max. Drag Torque (N-m) .025 .025 .025 .040 .040 .040 .040 .040 .040 .040 .040 .040 .040 .040 .040 .040 .040 .050 .050 .025 .025 .025 .025 .025 .040
READED (metric) FLANGED (metric)	Screw Ø (A) mm 6 8 10 12 14 16 18 20 Screw Ø (A) mm 6 8 8 10 12 12	Nut Ø (B) mm 17.8 22.1 22.1 26.9 33.0 41.4 41.4 17.8 22.1 26.9 33.0 41.4 41.4 22.1 22.1 22.1 22.1 22.1 26.9 33.0	Nut Length (C) mm 40.6 45.7 45.7 53.3 63.5 63.5 71.1 71.1 Nut Length (C) mm 40.6 45.7 53.3 63.5 63.5 63.5 63.5 63.5 63.5 63.5 63.5 63.5 63.5	Hange Ø (D) mm 28.6 38.1 38.1 44.5 44.5 60.5 60 Hex Across Flats (H) mm 17.5 22.4 22.4 25.4 31.8	Flange Thickness (E) mm 4.8 6.4 6.4 6.4 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 8.0	Mounting Hole Ø (F) mm 3.7 5.2 5.2 5.6 5.6 5.6 5.6 5.6 5.6 6.4 9.5 9.5 9.5 9.5 9.5	Bolt Circle (G) mm 22.2 28.6 28.7 44.5 50.8 50.8 9/16-18 3/4-20 3/4-20 15/16-16 1 1/8-16	Dynamic Load (kg.) 9 13 13 34 41 68 113 113 113 113 113 113 113 113 13 13 13 13 13 13 13 14	Max.Drag Torque (N-w) .025 .025 .025 .025 .040 .040 .040 .040 .040 .040 .040 .040 .040 .040 .040 .040 .040 .040 .050 Max.Drag Torque (N-m) .025 .025 .025 .025 .025 .025 .040
THREADED (metric) FLANGED (metric)	Screw Ø (A) mm 6 8 10 12 14 16 18 20 Screw Ø (A) mm 6 8 10 12 12 14 16 13 20 5 5 5 5 5 5 5 5 5 5 5 5 5	Nut Ø (B) mm 17.8 22.1 26.9 33.0 33.0 41.4 41.4 17.8 22.1 26.9 33.0 41.4 22.1 26.9 33.0 33.0 33.0 33.0 33.0 33.0 33.0 33.0 33.0 33.0	Nut Length (C) mm 40.6 45.7 53.3 63.5 63.5 71.1 71.1 Nut Length (C) mm 40.6 45.7 53.3 63.5 63.5 63.5 63.5 63.5 63.5 63.5 63.5 63.5 63.5	Hange Ø (D) mm 28.6 38.1 38.1 44.5 44.5 60.5 60 Hex Across Flats (H) mm 17.5 22.4 25.4 31.8 31.8	Hange Thickness (E) mm 4.8 6.4 6.4 6.4 6.4 8.0 8.0 8.0 8.0 8.0 4.8 6.4 6.4 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 6.4 6.4 6.4 6.4 8.0 8.0	Mounting Hole Ø (F) mm 3.7 5.2 5.2 5.6 5.6 5.6 5.6 5.6 6.4 9.5 9.5 9.5 9.5 9.5 9.5 9.5	Bolt Circle (G) mm 22.2 28.6 28.7 44.5 50.8 50.8 50.8 9/16-18 3/4-20 15/16-16 1 1/8-16	Dynamic Load (kg.) 9 13 13 34 41 68 113 113 0ynamic Load (kg.) 9 13 13 113 113 13 34 41 68 113 34 41 68	Max. Drag Torque (N-w) .025 .025 .025 .040 .040 .040 .040 .040 .040 .040 .040 .040 .040 .040 .040 .040 .050 Max. Drag Torque (N-m) .025 .025 .025 .025 .025 .025 .025 .025 .025 .025 .025 .025 .025 .025 .025 .040
THREADED (metric) FLANGED (metric)	Screw Ø (A) mm 6 8 10 12 14 16 18 20 Screw Ø (A) mm 6 8 10 12 14 10 12 14 16 18 10 12 14 16 18 10 18 10 18 10 12 14 16 18 10 12 14 16 18 10 12 14 16 18 10 10 12 14 16 18 10 10 12 14 16 18 10 10 12 14 16 18 10 10 12 14 16 18 10 10 12 14 16 18 10 10 12 14 16 18 10 10 12 14 16 18 10 10 10 12 14 16 18 10 10 10 10 10 10 10 10 10 10	Nut Ø (B) mm 17.8 22.1 22.1 26.9 33.0 41.4 41.4 17.8 22.1 26.9 33.0 41.4 41.4 22.1 22.1 22.1 22.1 22.1 23.0 33.0 33.0 33.0 33.0 33.0 33.0 33.0	Nut Length (C) mm 40.6 45.7 45.7 53.3 63.5 63.5 71.1 71.1 71.1 71.1 71.1 71.1 53.3 63.5 63.5 63.5 63.5 63.5 63.5 63.5 63.5 63.5 63.5 71.1	Hange Ø (D) mm 28.6 38.1 38.1 44.5 44.5 60.5 60 Hex Across Flats (H) mm 17.5 22.4 25.4 31.8 39.6	Flange Thickness (E) mm 4.8 6.4 6.4 6.4 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 6.4 6.4 6.4 6.4 6.4 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0	Mounting Hole Ø (F) mm 3.7 5.2 5.2 5.6 5.6 5.6 5.6 5.6 5.6 9.5	Bolt Circle (G) mm 22.2 28.6 28.7 44.5 50.8 50.8 9/16-18 3/4-20 3/4-20 15/16-16 1 1/8-16 1 3/8-16	Dynamic Load (kg.) 9 13 13 34 41 68 113 113 113 113 113 113 113 13 34 41 68 13 34 41 68 13 34 41 68 113	Max. Drag Torque (N-w) .025 .025 .025 .025 .040 .040 .040 .040 .040 .040 .040 .040 .040 .040 .040 .050 Max. Drag Torque (N-m) .025 .025 .025 .025 .025 .025 .025 .025 .025 .025 .025 .025 .025 .025 .025 .025 .040 .040
THREADED (metric) FLANGED (metric)	Screw Ø (A) mm 6 8 10 12 14 16 18 20 Screw Ø (A) mm 6 8 10 14 16 18 20 Screw Ø (A) mm 12 14 16 18 10 12 14 16 18 20	Nut Ø (B) mm 17.8 22.1 26.9 33.0 33.0 41.4 41.4 17.8 22.1 26.9 33.0 41.4 1.4 33.0 41.4 33.0 41.4 33.0 17.8 22.1 26.9 33.0 33.0 41.4 41.4	Nut Length (C) mm 40.6 45.7 53.3 63.5 63.5 71.1 71.1 Nut Length (C) mm 40.6 45.7 53.3 63.5 71.1 Nut Length (C) mm 40.6 45.7 53.3 63.5 71.1 71.1 71.1	Hange Ø (D) mm 28.6 38.1 38.1 44.5 44.5 60.5 60 Hex Across Flats (H) mm 17.5 22.4 25.4 31.8 39.6 39.6	Hange Thickness (E) mm 4.8 6.4 6.4 6.4 8.0	Mounting Hole Ø (F) mm 3.7 5.2 5.2 5.6 5.6 5.6 5.6 5.6 6.4 9.5	Bolt Circle (G) mm 22.2 28.6 28.7 44.5 50.8 50.8 50.8 9/16-18 3/4-20 15/16-16 1 1/8-16 1 3/8-16 1 3/8-16	Dynamic Load (kg.) 9 13 13 34 41 68 113 113 113 113 113 113 113 13 34 41 68 13 34 41 68 113 34 41 68 113 113	Max. Drag Torque (N-w) .025 .025 .025 .040 .040 .040 .040 .040 .040 .040 .040 .040 .040 .040 .040 .050 Max. Drag Torque (N-w) .025 .025 .025 .025 .025 .025 .025 .025 .025 .025 .025 .025 .040 .040 .040 .040 .040 .040 .040

www.helixlinear.com

1-855-HELIXLT