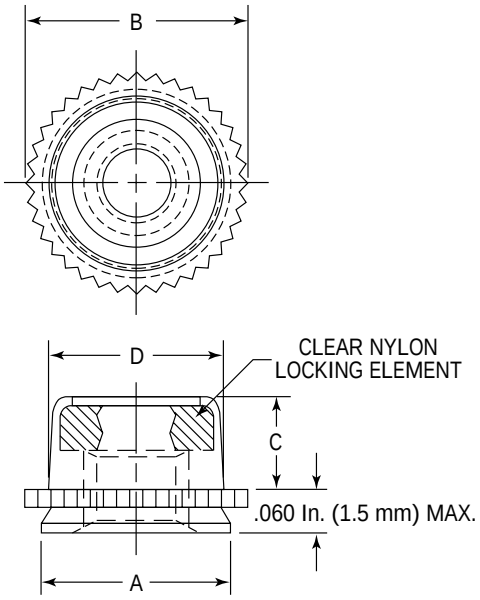
Self-Clinching Top Collar Lock Nuts

Series CPL & CPLC

CPL top collar lock nuts combine reliable self-clinching mounting with a reusable non-metallic thread locking element.



Series	Material	Finish	Locking Element
CPL	Heat-treated Carbon Steel	Zinc* Clear	Clear Nylon
CPLC	300 Series Stainless Steel	Passivated ASTM A380	Clear Nylon

*Spec. ASTM B633-85

Thread: Class 2B, MIL-S-7742; (6H ISO Metric).

Use in: Material with Rockwell Hardness of B-70 or less.

Note 1 — Installation Tips

Thin Sheets — May be installed in panel thickness of .040 to .059 (1mm to 1.5mm) if fastener is partially installed in sheet. The knurled collar must be raised above sheet by the difference in thickness from .059 (1.5mm).

Thick Sheets — If fastener is installed in sheet greater than .070 (1.7mm), knurled collar may crack if mating screw is tightened above maximum torque limit.

Dimensions & Specifications

	Thread Size	Part Number Carbon Steel	Part Number Stainless Steel	See Note 1 Thickness Range	+.003 in. (0.08mm) –.000	A Max.	B Max.	C Max.	D Max.	Min.
INCH (in.)	#4-40	CPL440	CPLC440	.059-.070	.234	.233	.28	.130	.216	.132
	#6-32	CPL632	CPLC632	.059-.070	.265	.264	.31	.130	.246	.158
	#8-32	CPL832	CPLC832	.059-.070	.297	.296	.34	.155	.278	.184
	#10-32	CPL1032	CPLC1032	.059-.070	.312	.311	.35	.165	.292	.210
METRIC (mm)	M3 x 0.5	CPLM3	CPLCM3	1.5-1.78	6.0	5.97	7.1	3.6	5.5	4.3
	M4 x 0.7	CPLM4	CPLCM4	1.5-1.78	7.5	7.47	8.6	4.2	7.0	5.6
	M5 x 0.8	CPLM5	CPLCM5	1.5-1.78	8.0	7.97	8.9	4.5	7.5	6.4

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Continued from previous page.

Installation & Performance Data

	Thread Size	Max. Tightening Torque (in.-lbs.)	Installation Force (tons)	Pushout (lbs.)	Torque-out (in.-lbs.)	Installation Force (tons)	Pushout (lbs.)	Torque-out (in.-lbs.)
		.048 in. Cold-rolled Steel				.060 in. Cold-rolled Steel		
INCH (in.)	#4-40	9	1-2	230	20	2	260	30
	#6-32	12	1-2	270	30	2	290	30
	#8-32	19	1-2	270	60	2	290	60
	#10-32	26	1-2	300	70	2	350	70
	Thread Size	Max. Tightening Torque (in.-lbs.)	Installation Force (tons)	Pushout (lbs.)	Torque-out (in.-lbs.)	Installation Force (tons)	Pushout (lbs.)	Torque-out (in.-lbs.)
		.060 in. 5052H34 Aluminum				.040 in. 5052H34 Aluminum		
	#4-40	9	1	225	20	1	150	20
	#6-32	12	1	285	30	1	180	25
	#8-32	19	1	290	60	1	180	28
	#10-32	26	1	300	70	1	180	40
	Thread Size	Max. Tightening Torque (N•m)	Installation Force (kN)	Pushout (N)	Torque-out (N•m)	Installation Force (kN)	Pushout (N)	Torque-out (N•m)
		1.5mm Cold-rolled Steel				1.2mm Cold-rolled Steel		
METRIC (mm)	M3	1.1	13.34	1156	2.2	13.34	1000	2.2
	M4	2.2	13.34	1290	6.7	13.34	1200	6.7
	M5	3.1	13.34	1557	7.9	13.34	1380	7.9
	Thread Size	Max. Tightening Torque (N•m)	Installation Force (kN)	Pushout (N)	Torque-out (N•m)	Installation Force (kN)	Pushout (N)	Torque-out (N•m)
		1.5mm 5052H34 Aluminum				1.0mm 5052H34 Aluminum		
	M3	1.1	8.90	1000	2.2	6.67	710	2.2
	M4	2.2	8.90	1290	6.7	6.67	800	3.1
	M5	3.1	8.90	1330	7.9	6.67	800	4.5