

**Alcoa
Fastening
Systems**



Industrial Distribution Group



Recoil[®]
Solid Threaded Inserts,
Tooling, & Kits



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KEYSERT® Thread Repair Inserts

The Solid Alternative for Thread Repair

Keyserts are solid, one-piece, key-locking inserts used to repair damaged threads or for use in original equipment. The Keysert locking keys provide a positive mechanical lock which prevents rotation due to vibration or torsion. Keyserts are available in carbon or stainless steel, both in inch and metric series. Thinwall, Heavy Duty, Extra Heavy Duty, and Solid insert styles are available separately or in kits containing a range of sizes. Installation tools are also available separately or in a range kit.

Features

- Installed with standard drills and taps
- Easy installation
- May be used in many materials; aluminum, magnesium, and cold rolled steel
- Easy to remove

Typical Applications

- Trucks, RV's
- Machinery, Small Engine
- Molds, Tool and Die
- MRO Tasks

Important Note

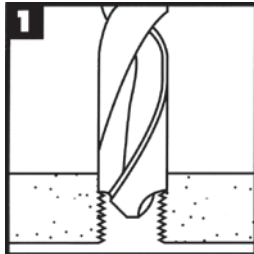
- Keyserts are not recommended for use in brittle materials, like cast iron or plastic

Requests for more information are welcome. The user assumes full responsibility for his or her applications. THERE IS NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. No one is authorized by our company to make oral warranties.

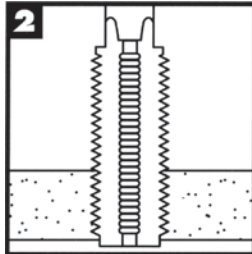


Installation and Removal

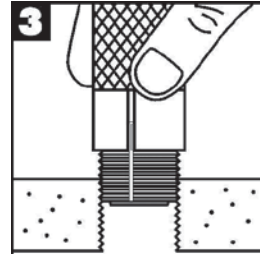
Installation



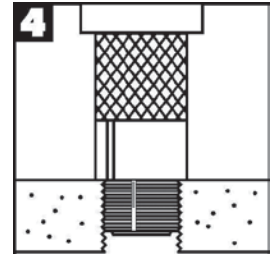
Drill out old threads with a standard drill. **Note: Drill is oversize – see charts for proper dimensions.** Chamfer the hole with a standard countersink (82°-100°).



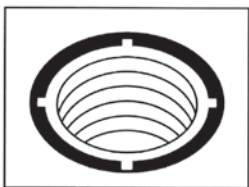
Tap new threads with a standard tap. See charts for proper size and depth.



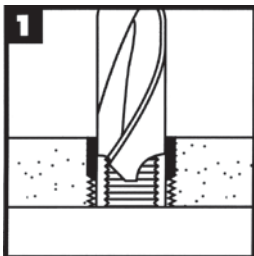
Screw in the insert until slightly below surface.



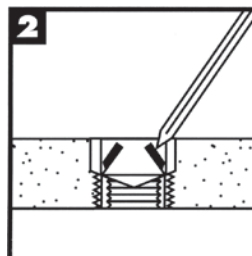
Drive keys down with several hammer taps on the proper installation tool.



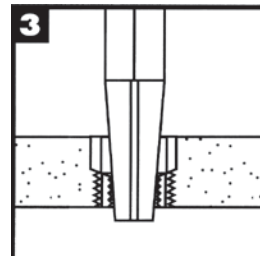
Removal



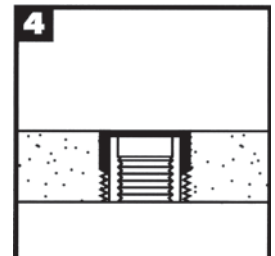
Drill out material between keys and internal thread with standard drill to specified depth (refer to charts for proper dimensions).



Deflect keys inward and break off.



Remove insert using an E-Z OUT or similar type tool.



Same size replacement insert may be installed in the original hole.



Thin and Heavywall Keyserts

Thinwall – Inch Series

Insert					Installation					Removal	
Carbon Part No.	Stainless Part No.	Internal Thread Class 2B	External Thread (Mod.) Class 2A	Length in.	Installation Tool Part No.	Tap Drill Size	C'Sink Diameter +.010/-.000	Thread Tap		Drill	
								Size Class 2B	Min. Depth	Size	Depth
73601	73606	10-24	5/16-18	0.31	72190	I	0.32	5/16-18	0.37	7/32	1/8
74601	74606	10-32									
73041	73046	1/4-20	3/8-16	0.37	72250	Q	0.38	3/8-16	0.43	9/32	3/16
74041	74046	1/4-28									
73051	73056	5/16-18	7/16-14	0.43	72312	X	0.44	7/16-14	0.50	11/32	3/16
74051	74056	5/16-24									
73061	73066	3/8-16	1/2-13	0.50	72375	29/64	0.51	1/2-13	0.56	13/32	3/16
74061	74066	3/8-24									
73071	73076	7/16-14	9/16-12	0.56	72375	33/64	0.57	9/16-12	0.62	15/32	3/16
74071	74076	7/16-20									
73081	73086	1/2-13	5/8-11	0.62	72500	37/64	0.63	5/8-11	0.68	17/32	3/16
74081	74086	1/2-20									

Heavy Duty – Inch Series

Insert					Installation					Removal	
Carbon Part No.	Stainless Part No.	Internal Thread Class 2B	External Thread (Mod.) Class 2A	Length in.	Installation Tool Part No.	Tap Drill Size	C'Sink Diameter +.010/-.000	Thread Tap		Drill	
								Size Class 2B	Min. Depth	Size	Depth
73582	73587	8-32	5/16-18	0.31	70582	I	0.32	5/16-18	0.37	7/32	1/8
73602	73607	10-24	3/8-16	0.31	72190	Q	0.38	3/8-16	0.37	9/32	1/8
74602	74607	10-32									
73042	73047	1/4-20	7/16-14	0.37	72250	X	0.44	7/16-14	0.43	11/32	3/16
74042	74047	1/4-28									
73052	73057	5/16-18	1/2-13	0.43	72312	29/64	0.51	1/2-13	0.50	13/32	3/16
74052	74057	5/16-24									
73062	73067	3/8-16	9/16-12	0.50	72375	33/64	0.57	9/16-12	0.56	15/32	3/16
74062	74067	3/8-24									
73072	73077	7/16-14	5/8-11	0.62	72375	37/64	0.63	5/8-11	0.68	17/32	3/16
74072	74077	7/16-20									
73082	73087	1/2-13	3/4-16	0.62	72500	45/64	0.76	3/4-16	0.68	21/32	3/16
74082	74087	1/2-20									
73092	73097	9/16-12	3/4-16	0.81	72500	45/64	0.76	3/4-16	0.94	21/32	3/16
74092	74097	9/16-18									
73102	73107	5/8-11	7/8-14	0.87	72625	53/64	0.88	7/8-14	1.00	25/32	5/16
74102	74107	5/8-18									
73122	73127	3/4-10	1 1/8-12	1.12	72875	1 1/16	1.14	1 1/8-12	1.31	31/32	5/16
74122	74127	3/4-16									
73142	73147	7/8-9	1 1/4-12	1.25	72875	1 3/16	1.27	1 1/4-12	1.44	1 3/32	5/16
74142	74147	7/8-14									
73162	73167	1-8	1 3/8-12	1.37	72100	1 5/16	1.39	1 3/8-12	1.56	1 7/32	5/16
74162	74167	1-12									
74162-14		1-14									
73182		1 1/8-7	1 1/2-12	1.62	70182	1 7/16	1.52	1 1/2-12	1.84	1 11/32	5/16
74182		1 1/8-12									
73202		1 1/4-7	1 5/8-12	1.81	70202	1 9/16	1.64	1 5/8-12	2.06	1 15/32	5/16
74202		1 1/4-12									
73242		1 1/2-6	1 7/8-12	2.00	70242	1 13/16	1.89	1 7/8-12	2.28	1 23/32	5/16
74242		1 1/2-12									

Carbon Steel Bulk Keyserts

Technical Notes:

- Material: Inserts – C1215 or equivalent
Keys – 302 Stainless Steel
- Finish: Carbon Steel Inserts – Zinc Phosphate and Ferrocote 364-3 Oil
Stainless Steel Inserts – Passivated
- Tolerances: ± 0.10 inch or ± 0.25 mm unless specified otherwise.
- Dimensions: Inch sizes are in inches.
Metric sizes are in millimeters.
- Keys: Inserts with internal thread size 5/16 or M7 and larger are furnished with 4 locking keys.



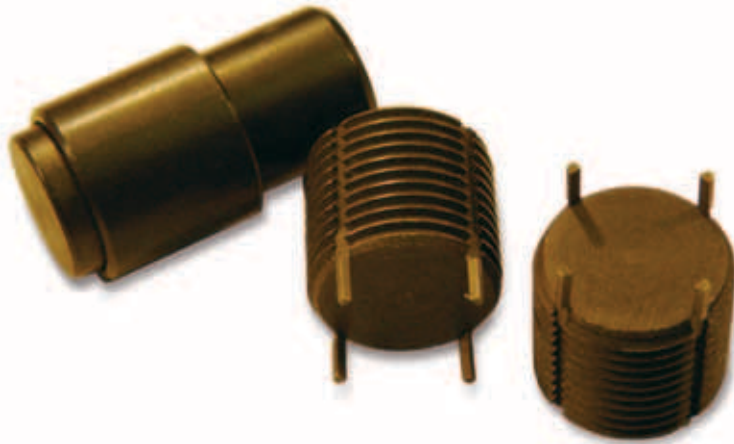
Thinwall – Metric – Carbon Steel

Insert					Installation					Removal	
Carbon Part No.	Stainless Part No.	Internal Thread Class 6H	External Thread Class 6g	Length in.	Installation Tool Part No.	Tap Drill Size	C'Sink Diameter +.25/-0.00	Thread Tap		Drill	
								Size Class 6H	Min. Depth	Size	Depth
75051	75056	M5-8	M8-1.25	8.0	72190	6.9	8.25	M8-1.25	9.5	5.50	4.00
75061	75066	M6-1	M10-1.25	10.0	72250	8.8	10.25	M10-1.25	11.5	7.50	4.75
75081	75086	M8-1.25	M12-1.25	12.0	72312	10.8	12.25	M12-1.25	13.5	9.50	4.75
77081	77086	M8-1									
75101	75106	M10-1.5	M14-1.5	14.0	72375	12.8	14.25	M14-1.5	15.5	11.50	4.75
77101	77106	M10-1.25									
75121	75126	M12-1.75	M16-1.5	16.0	72500	14.75	16.25	M16-1.5	17.5	13.50	4.75
78121	78126	M12-1.25									

Heavy Duty – Metric – Carbon Steel

Insert					Installation					Removal	
Carbon Part No.	Stainless Part No.	Internal Thread Class 6H	External Thread Class 6g	Length in.	Installation Tool Part No.	Tap Drill Size	C'Sink Diameter +.25/-0.00	Thread Tap		Drill	
								Size Class 6H	Min. Depth	Size	Depth
75042	75047	M4-7	M8-1.25	8.0	71042	6.90	8.25	M8-1.25	9.5	5.50	4.00
75052	75057	M5-8	M10-1.25	10.0	72190	8.80	10.25	M10-1.25	12.5	7.50	4.75
75062	75067	M6-1	M12-1.25	12.0	72250	10.80	12.25	M12-1.25	14.5	9.50	4.75
75082	75087	M8-1.25	M14-1.5	14.0	72312	12.80	14.25	M14-1.5	16.5	11.50	4.75
77082	77087	M8-1									
75102	75107	M10-1.5	M16-1.5	16.0	72375	14.75	16.25	M16-1.5	18.5	13.50	4.75
77102	77107	M10-1.25									
75122	75127	M12-1.75	M18-1.5	18.0	72500	16.75	18.25	M18-1.5	20.5	15.50	4.75
78122	78127	M12-1.25									
75142	75147	M14-2	M20-1.5	20.0	71142	18.75	20.25	M20-1.5	22.5	17.50	4.75
77142	77147	M14-1.5									
75162	75167	M16-2	M22-1.5	22.0	72625	20.50	22.25	M22-1.5	24.5	17.75	6.35
77162	77167	M16-1.5									
78182	78187	M18-1.5	M24-1.5	24.0	71182	22.50	24.25	M24-1.5	26.5	19.75	6.35
75202	75207	M20-2.5	M30-2	30.0	72875	28.00	30.25	M30-2	34.5	25.75	6.35
78202	78207	M20-1.5									
78222	78227	M22-1.5	M32-2	32.0	71222	30.00	32.25	M32-2	36.5	27.75	6.35
75242	75247	M24-3	M33-2	33.0	71242	31.00	33.25	M33-2	37.5	28.75	6.35
77242	77247	M24-2									

Solid Keyserts



Solid threaded inserts are perfect for:

- relocating holes that have been drilled or tapped in the wrong place
- plugging holes or filling in holes that are too big

Solid Inch - Carbon or Stainless Steel

Insert				Installation					Removal	
Carbon Part No.	Stainless Part No.	External Thread (Mod.) Class 2A	Length in.	Installation Tool Part No.	Tap Drill Size	C'Sink Diameter +.010/-0.000	Thread Tap		Drill	
							Size Class 2B	Min. Depth	Size	Depth
73054	73059	5/16-18	0.31	70054	I	0.32	5/16-18	0.37	7/32	1/8
73064	73069	3/8-16	0.31	70064	Q	0.38	3/8-16	0.37	9/32	1/8
73074	73079	7/16-14	0.37	70074	X	0.44	7/16-14	0.43	11/32	3/16
73084	73089	1/2-13	0.43	70084	29/64	0.51	1/2-13	0.50	13/32	3/16
73094	73099	9/16-12	0.50	70094	33/64	0.57	9/16-12	0.56	15/32	3/16
73104	73109	5/8-11	0.62	70104	37/64	0.63	5/8-11	0.68	17/32	3/16
73124	73129	3/4-16	0.68	70124	45/64	0.76	3/4-16	0.68	21/32	3/16
73144	73149	7/8-14	0.87	70144	53/64	0.88	7/8-14	1.00	25/32	5/16
74164	74169	1-12	0.87	70164	15/16	1.02	1-12	1.00	27/32	5/16
74184	74189	1 1/8-12	1.12	70184	1 1/16	1.14	1 1/8-12	1.31	31/32	5/16
74204	74209	1 1/4-12	1.25	70204	1 3/16	1.27	1 1/4-12	1.44	1 3/32	5/16
74224	74229	1 3/8-12	1.37	70224	1 5/16	1.39	1 3/8-12	1.56	1 7/32	5/16

Solid Metric – Carbon or Stainless Steel

Insert				Installation					Removal	
Carbon Part No.	Stainless Part No.	External Thread (Mod.) Class 6g	Length in.	Installation Tool Part No.	Tap Drill Size	C'Sink Diameter +.25/-0.00	Thread Tap		Drill	
							Size Class 6H	Min. Depth	Size	Depth
75084	75089	M8-1.25	8.0	71084	6.90	8.25	M8-1.25	9.5	5.50	4.00
77104	77109	M10-1.25	10.0	71104	8.80	10.25	M10-1.25	12.5	7.50	4.75
78124	78129	M12-1.25	12.0	71124	10.80	12.25	M12-1.25	14.5	9.50	4.75
77144	77149	M14-1.5	14.0	71144	12.80	14.25	M14-1.5	16.5	11.50	4.75
77164	77169	M16-1.5	16.0	71164	14.75	16.25	M16-1.5	18.5	13.50	4.75
78184	78189	M18-1.5	18.0	71184	16.75	18.25	M18-1.5	20.5	15.50	4.75
78204	78209	M20-1.5	20.0	71204	18.75	20.25	M20-1.5	22.5	17.50	4.75
78224	78229	M22-1.5	22.0	71224	20.50	22.25	M22-1.5	24.5	17.75	6.35
78244	78249	M24-1.5	24.0	71244	22.50	24.25	M24-1.5	26.5	19.75	6.35
77304	77309	M30-2	30.0	71304	28.00	30.25	M30-2	34.5	25.75	6.35
77324	77329	M32-2	32.0	71324	30.00	32.25	M32-2	36.5	27.75	6.35

Extra Heavy Duty Keyserts

Extra Heavy Duty Inch - Carbon or Stainless Steel											
Insert					Install					Removal	
Carbon Part No.	Stainless Part No.	Internal Thread Class 2B	External Thread (Mod.) Class 2A	Length in.	Installation Tool Part No.	Tap Drill Size	C'Sink Diameter +.010/-000	Thread Tap		Drill	
								Size Class 2B	Min. Depth	Size	Depth
73563	73568	6-32	5/16-18	0.31	70563	I	0.32	5/16-18	0.37	7/32	1/8
73583	73588	8-32	3/8-16	0.31	70583	Q	0.38	3/8-16	0.37	9/32	1/8
73603	73608	10-24	7/16-14	0.31	70603	X	0.44	7/16-14	0.37	11/32	3/16
74603	74608	10-32									
73043	73048	1/4-20	1/2-13	0.37	70043	29/64	0.51	1/2-13	0.43	13/32	3/16
74043	74048	1/4-28									
73053	73058	5/16-18	9/16-12	0.43	70053	33/64	0.57	9/16-12	0.50	15/32	3/16
74053	74058	5/16-24									
73063	73068	3/8-16	5/8-11	0.50	70063	37/64	0.63	5/8-11	0.56	17/32	3/16
74063	74068	3/8-24									
73073	73078	7/16-14	3/4-16	0.62	70073	45/64	0.76	3/4-16	0.68	21/32	3/16
74073	74078	7/16-20									
73083	73088	1/2-13	7/8-14	0.68	70083	53/64	0.88	7/8-14	0.75	25/32	5/16
74083	74088	1/2-20									
73093	73098	9/16-12	7/8-14	0.81	70093	53/64	0.88	7/8-14	0.94	25/32	5/16
74093	74098	9/16-18									
73103	73108	5/8-11	1-12	0.87	70103	15/16	1.02	1-12	1.00	27/32	5/16
74103	74108	5/8-18									
73123	73128	3/4-10	1 1/4-12	1.12	70123	1 3/16	1.27	1 1/4-12	1.31	1 3/32	5/16
74123	74128	3/4-16									
73143	73148	7/8-9	1 3/8-12	1.25	70143	1 5/16	1.39	1 3/8-12	1.44	1 7/32	5/16
74143	74148	7/8-14									
73163	73168	1-8	1 1/2-12	1.37	70163	1 7/16	1.52	1 1/2-12	1.56	1 11/32	5/16
74163	74168	1-12									

Carbon Steel Cross-Reference Index					
Keysert Part No.	Alternate Part No.	Keysert Part No.	Alternate Part No.	Keysert Part No.	Alternate Part No.
73041	RKKA 1/4-20	73601	RKKA 10-24	74202	RKK1 1/4-12
73042	RKK 1/4-20	73602	RKK 10-24	74242	RKK1 1/2-12
73051	RKKA 5/16-18	74041	RKKA 1/4-28	74601	RKKA 10-32
73052	RKK 5/16-18	74042	RKK 1/4-28	74602	RKK 10-32
73061	RKKA 3/8-16	74051	RKKA 5/16-24	75051	KNM 5x0.8F
73062	RKK 3/8-16	74052	RKK 5/16-24	75061	KNM 6x1F
73071	RKKA 7/16-14	74061	RKKA 3/8-24	75081	KNM 8x1.25F
73072	RKK 7/16-14	74062	RKK 3/8-24	75101	KNM10x1.5F
73081	RKKA 1/2-13	74071	RKKA 7/16-20	75121	KNM12x1.75F
73082	RKK 1/2-13	74072	RKK 7/16-20	77081	KNM 8x1F
73092	RKK 9/16-12	74081	RKKA 1/2-20	77101	KNM 10x1.25F
73102	RKK 5/8-11	74082	RKK 1/2-20	78121	KNM 12x1.25F
73122	RKK 3/4-10	74092	RKK 9/16-18	75142	KNHM 14x2F
73142	RKK 7/8-9	74102	RKK 5/8-18	77142	KNHM 14x1.5F
73162	RKK 1-8	74122	RKK 3/4-16	77162	KNHM 16x1.5F
73182	RKK 1 1/8-7	74142	RKK 7/8-14	78182	KNHM 18x1.5F
73202	RKK1 1/4-7	74162-14	RKK 1-14	78202	KNHM 20x1.5F
73242	RKK1 1/2-6	74162	RKK 1-12	78222	KNHM 22x1.5F
73582	RKK 8-32	74182	RKK1 1/8-12	77242	KNHM 24x2F

Tooling & 4-Piece Range Kits

Tooling-Only Range Kit

Keysert Tooling Range Kit/72000		
Keysert Tool No.	Installs Inch Series (TW & HD)	Installs Metric Series (TW & HD)
72190	#10	M5
72250	1/4"	M6
72312	5/16"	M8
72375	3/8"-7/16"	M10
72500	1/2"-9/16"	M12
72625	5/8"	M16
72875	3/4"-7/8"	M20
72100	1"	N/A



4-Piece Range Kits

UNC Carbon Steel Thinwall/ 76003				
Size	Keysert Insert No.	No. of Pieces	Keysert Tool No.	No. of Pieces
1/4-20	73041	12	72250	1
5/16-18	73051	12	72312	1
3/8-16	73061	12	72375	1
1/2-13	73081	6	72500	1

UNC Stainless Steel Thinwall/ 76004				
Size	Keysert Insert No.	No. of Pieces	Keysert Tool No.	No. of Pieces
1/4-20	73046	12	72250	1
5/16-18	73056	12	72312	1
3/8-16	73066	12	72375	1
1/2-13	73086	6	72500	1



Metric Coarse Carbon Steel Thinwall/75003				
Size	Keysert Insert No.	No. of Pieces	Keysert Tool No.	No. of Pieces
M5-0.8	75051	12	72190	1
M6-1.0	75061	12	72250	1
M8-1.25	75081	12	72312	1
M10-1.5	75101	12	72375	1

Metric Coarse Stainless Steel Thinwall/75004				
Size	Keysert Insert No.	No. of Pieces	Keysert Tool No.	No. of Pieces
M5-0.8	75056	12	72190	1
M6-1.0	75066	12	72250	1
M8-1.25	75086	12	72312	1
M10-1.5	75106	12	72375	1

6-Piece & Master Range Kits

6-Piece Range Kits

UNC Carbon Steel Heavy-Duty/70003				
Size	Keysert Insert No.	No. of Pieces	Keysert Tool No.	No. of Pieces
1/4-20	73042	20	70042	1
5/16-18	73052	15	70052	1
3/8-16	73062	10	70062	1
1/2-13	73082	6	70082	1
5/8-11	73102	3	70102	1
3/4-10	73122	3	70122	1

UNF Carbon Steel Heavy-Duty/ 71003				
Size	Keysert Insert No.	No. of Pieces	Keysert Tool No.	No. of Pieces
1/4-28	74042	20	70042	1
5/16-24	74052	15	70052	1
3/8-24	74062	10	70062	1
1/2-20	74082	6	70082	1
5/8-18	74102	3	70102	1
3/4-16	74122	3	70122	1

UNC Stainless Steel Heavy-Duty/ 70004				
Size	Keysert Insert No.	No. of Pieces	Keysert Tool No.	No. of Pieces
1/4-20	73047	20	70042	1
5/16-18	73057	15	70052	1
3/8-16	73067	10	70062	1
1/2-13	73087	6	70082	1
5/8-11	73107	3	70102	1
3/4-10	73127	3	70122	1

UNF Stainless Steel Heavy-Duty/ 71004				
Size	Keysert Insert No.	No. of Pieces	Keysert Tool No.	No. of Pieces
1/4-28	74047	20	70042	1
5/16-24	74057	15	70052	1
3/8-24	74067	10	70062	1
1/2-20	74087	6	70082	1
5/8-18	74107	3	70102	1
3/4-16	74127	3	70122	1

Master Range Kits

UNC Carbon Steel Heavy-Duty/73003				
Size	Keysert Insert No.	No. of Pieces	Keysert Tool No.	No. of Pieces
1/4-20	73042	20	70042	1
5/16-18	73052	15	70052	1
3/8-16	73062	10	70062	1
7/16-14	73072	10	70072	1
1/2-13	73082	6	70082	1
9/16-12	73092	5	70092	1
5/8-11	73102	3	70102	1
3/4-10	73122	3	70122	1
7/8-9	73142	3	70142	1
1-8	73162	2	70162	1

UNF Carbon Steel Heavy-Duty/74003				
Size	Keysert Insert No.	No. of Pieces	Keysert Tool No.	No. of Pieces
1/4-28	74042	20	70042	1
5/16-24	74052	15	70052	1
3/8-24	74062	10	70062	1
7/16-20	74072	10	70072	1
1/2-20	74082	6	70082	1
9/16-18	74092	5	70092	1
5/8-18	74102	3	70102	1
3/4-16	74122	3	70122	1
7/8-14	74142	3	70142	1
1-12	74162	2	70162	1

UNC Stainless Steel Heavy-Duty/73004				
Size	Keysert Insert No.	No. of Pieces	Keysert Tool No.	No. of Pieces
1/4-20	73047	20	70042	1
5/16-18	73057	15	70052	1
3/8-16	73067	10	70062	1
7/16-14	73077	10	70072	1
1/2-13	73087	6	70082	1
9/16-12	73097	5	70092	1
5/8-11	73107	3	70102	1
3/4-10	73127	3	70122	1
7/8-9	73147	3	70142	1
1-8	73167	2	70162	1

UNF Stainless Steel Heavy-Duty/74004				
Size	Keysert Insert No.	No. of Pieces	Keysert Tool No.	No. of Pieces
1/4-28	74047	20	70042	1
5/16-24	74057	15	70052	1
3/8-24	74067	10	70062	1
7/16-20	74077	10	70072	1
1/2-20	74087	6	70082	1
9/16-18	74097	5	70092	1
5/8-18	74107	3	70102	1
3/4-16	74127	3	70122	1
7/8-14	74147	3	70142	1
1-12	74167	2	70162	1

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Threaded Inserts
for Metal



Knife Thread Inserts
for Hard Wood



Hex Drive Inserts
for Soft Wood

E-Z LOK Thread Repair Inserts

Strong Threads Made Easy

Screw machined from solid steel, E-Z LOK threaded inserts have standard size/pitch threads, so they can be installed using standard tools that are probably already in your toolbox.

For example, to install an E-Z LOK 329-5 (which has a 1/2-13 external thread), simply drill the hole with a standard 27/64 drill. Tap the hole with a standard 1/2-13 tap. Finally, thread the insert into the hole just as you would an ordinary fastener using a screwdriver, bolt and jam nut, or E-Z LOK drive tool.

Immediately upon installation, microencapsulated adhesive begins to set. This means the newly installed insert will be completely fastened within minutes. In addition, this adhesive seals against liquids and gases to pressures of 6,000 psi.

Features

- Installed with standard drills and taps
- Will not back out or loosen due to vibration
- Bonds to virtually all metals
- Easy removal

Requests for more information are welcome. The user assumes full responsibility for his or her applications. THERE IS NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. No one is authorized by our company to make oral warranties.

Installation and Removal

Installation

Drill hole with standard drill.



Tap hole with standard tap.

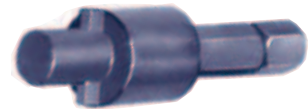


Turn E-Z LOK home flush with bolt.



Removal

For easy removal, use a standard screw and bolt extractor to back out a damaged insert before replacing it with a new one. Removal is achieved by overcoming resistance to torque-out, which has been produced by the thread locking material.



Power drive tools are available for high volume installation. See insert tables for catalog numbers and sizes.



Carbon Steel Thread Inserts for Metal

Coarse Thread Sizes							
E-Z LOK Part No.	Internal Thread	External Thread	Length in.	Tap Drill Size	Tap Size	Minimum Full Thread Depth	Drive Tool Catalog No.
329-004	4-40	10-32	.250	5/32	10-32	9/32	—
329-006	6-32	1/4-20	.280	7	1/4-20	11/32	500-006
329-008	8-32	5/16-18	.290	F	5/16-18	7/16	500-1
329-3	10-24	3/8-16	.406	5/16	3/8-16	15/32	500-2
329-4	1/4-20	7/16-14	.437	23/64	7/16-14	1/2	500-3
329-401	1/4-20	7/16-14	1.000	23/64	7/16-14	1.125	500-3
329-5	5/16-18	1/2-13	.484	27/64	1/2-13	9/16	500-4
329-501	5/16-18	1/2-13	1.000	27/64	1/2-13	1.125	500-4
329-6	3/8-16	9/16-12	.515	31/64	9/16-12	19/32	500-5
329-601	3/8-16	9/16-12	1.000	31/64	9/16-12	1.125	500-5
329-7	7/16-14	5/8-11	.656	17/32	5/8-11	23/32	500-6
329-8	1/2-13	3/4-10	.656	21/32	3/4-10	3/4	500-7
329-801	1/2-13	3/4-10	1.000	21/32	3/4-10	3/4	500-7
329-9	9/16-12	3/4-10	.656	21/32	3/4-10	3/4	500-7
329-10	5/8-11	7/8-9	.687	49/64	7/8-9	13/16	500-8
329-1018	5/8-11	7/8-9	1.125	49/64	7/8-9	1-1/4	500-8
329-12	3/4-10	1-8	.781	7/8	1-8	7/8	500-9
329-14	7/8-9	1-1/4-7	1.125	1-7/64	1-1/4-7	1-1/4	—
329-16	1-8	1-3/8-12	1.250	1-9/32	1-3/8-12	1-3/8	—

Fine Thread Sizes							
E-Z LOK Part No.	Internal Thread	External Thread	Length in.	Tap Drill Size	Tap Size	Minimum Full Thread Depth	Drive Tool Catalog No.
329-332	10-32	3/8-16	.406	5/16	3/8-16	15/32	500-2
329-428	1/4-28	7/16-14	.437	23/64	7/16-14	1/2	500-3
329-524	5/16-24	1/2-13	.484	27/64	1/2-13	9/16	500-4
329-624	3/8-24	9/16-12	.515	31/64	9/16-12	19/32	500-5
329-720	7/16-20	5/8-11	.656	17/32	5/8-11	23/32	500-6
329-820	1/2-20	3/4-10	.656	21/32	3/4-10	3/4	500-7
329-918	9/16-18	3/4-10	.656	21/32	3/4-10	3/4	500-7
329-10F	5/8-18	7/8-9	.687	49/64	7/8-9	13/16	500-8
329-1216	3/4-16	1-8	.781	7/8	1-8	7/8	500-9
329-1414	7/8-14	1-1/4-7	1.125	1-7/64	1-1/4-7	1-1/4	—
329-1614	1-14	1-3/8-12	1.250	1-9/32	1-3/8-12	1-3/8	—

Thin Wall – Coarse Thread Sizes							
E-Z LOK Part No.	Internal Thread	External Thread	Length in.	Tap Drill Size	Tap Size	Minimum Full Thread Depth	Drive Tool Catalog No.
319-3	10-24	5/16-18	.312	I	5/16-18	.375	500-2
319-4	1/4-20	3/8-16	.375	Q	3/8-16	.437	500-3
319-5	5/16-18	7/16-14	.437	X	7/16-14	.500	500-4
319-6	3/8-16	1/2-13	.500	29/64	1/2-13	.560	500-5
319-7	7/16-14	9/16-12	.560	33/64	9/16-12	.620	500-6
319-8	1/2-13	5/8-11	.620	37/64	5/8-11	.680	500-7

Thin Wall – Fine Thread Sizes							
E-Z LOK Part No.	Internal Thread	External Thread	Length in.	Tap Drill Size	Tap Size	Minimum Full Thread Depth	Drive Tool Catalog No.
319-332	10-32	5/16-18	.312	I	5/16-18	.375	500-2
319-428	1/4-28	3/8-16	.375	Q	3/8-16	.437	500-3
319-524	5/16-24	7/16-14	.437	X	7/16-14	.500	500-4
319-624	3/8-24	1/2-13	.500	29/64	1/2-13	.560	500-5
319-720	7/16-20	9/16-12	.560	33/64	9/16-12	.620	500-6
319-820	1/2-20	5/8-11	.620	37/64	5/8-11	.680	500-7

Carbon Steel Thread Inserts for Metal

Extra Heavy Wall – Coarse Thread Sizes

E-Z LOK Part No.	Internal Thread	External Thread	Length in.	Tap Drill Size	Tap Size	Minimum Full Thread Depth	Drive Tool Catalog No.
335-4	1/4-20	1/2-13	.48	27/64	1/2-13	9/16	500-3
335-5	5/16-18	9/16-12	.52	31/64	9/16-12	19/32	500-4
335-6	3/8-16	5/8-11	.66	17/32	5/8-11	23/32	500-5
335-8	1/2-13	7/8-9	.69	49/64	7/8-9	13/16	–
335-10	5/8-11	1-8	.78	7/8	1-8	7/8	–

Metric Thread Sizes – Metric Internal/Metric External

E-Z LOK Part No.	Internal Thread	External Thread	Length	Tap Drill Size	Tap Size	Minimum Full Thread Depth	Drive Tool Catalog No.
450-3	M3-0.5	M6-1.0	6.5mm	5.1mm	M6-1.0	7.8mm	–
450-4	M4-0.7	M8-1.25	7.5mm	6.9mm	M8-1.25	9.0mm	500-1
450-5	M5-0.8	M8-1.25	7.5mm	6.9mm	M8-1.25	9.0mm	500-1
450-6	M6-1.0	M10-1.5	10.5mm	8.6mm	M10-1.5	12.0mm	500-3
450-8	M8-1.25	M12-1.75	12.5mm	10.4mm	M12-1.75	14.5mm	500-4
450-10	M10-1.5	M16-2.0	17.0mm	14.0mm	M16-2.0	19.0mm	500-5
450-12	M12-1.75	M16-2.0	17.0mm	14.0mm	M16-2.0	19.0mm	500-6
450-16	M16-2.0	M24-3.0	20.0mm	21.0mm	M24-3.0	24.0mm	500-8
450-20	M20-2.5	M36-4.0	30.0mm	33.0mm	M36-4.0	35.0mm	–

Metric Thread Sizes – U.S. Internal/Metric External

E-Z LOK Part No.	Internal Thread	External Thread	Length in.	Tap Drill Size	Tap Size	Minimum Full Thread Depth	Drive Tool Catalog No.
550-006	6-32	M6-1.0	.256	5.1mm	M6-1.0	7.8mm	–
550-008	8-32	M8-1.25	.295	6.9mm	M8-1.25	9.0mm	500-1
550-1024	10-24	M8-1.25	.295	6.9mm	M8-1.25	12.0mm	500-2
550-1032	10-32	M8-1.25	.295	6.9mm	M8-1.25	12.0mm	500-2
550-1420	1/4-20	M10-1.5	.413	8.6mm	M10-1.5	14.5mm	500-3
550-5	5/16-18	M12-1.75	.492	10.4mm	M12-1.75	14.5mm	500-4
550-6	3/8-16	M16-2.0	.669	14.0mm	M16-2.0	19.0mm	500-5
550-8	1/2-13	M16-2.0	.669	14.0mm	M16-2.0	19.0mm	500-7

Metric Thread Sizes – Metric Internal/U.S. External

E-Z LOK Part No.	Internal Thread	External Thread	Length in.	Tap Drill Size	Tap Size	Minimum Full Thread Depth	Drive Tool Catalog No.
650-6	M6-1.0	3/8-16	.406	5/16	3/8-16	15/32	500-3
650-8	M8-1.25	1/2-13	.484	27/64	1/2-13	9/16	500-4
650-10	M10-1.50	9/16-12	.515	31/64	9/16-12	19/32	500-5
650-10F	M10-1.25	9/16-12	.515	31/64	9/16-12	19/32	500-5
650-12	M12-1.75	3/4-10	.656	21/32	3/4-10	3/4	500-6
650-14	M14-2.0	7/8-9	.687	49/64	7/8-9	13/16	500-7
650-16	M16-2.0	1-8	.781	7/8	1-8	7-8	500-8

Stainless Steel Thread Inserts for Metal

Coarse Thread Sizes In 303 Stainless Steel

E-Z LOK Part No.	Internal Thread	External Thread	Length in.	Tap Drill Size	Tap Size	Minimum Full Thread Depth	Drive Tool Catalog No.
303-004	4-40	10-32	.250	5/32	10-32	9/32	—
303-006	6-32	1/4-20	.280	7	1/4-20	11/32	—
303-008	8-32	5/16-18	.290	F	5/16-18	7/16	500-1
303-3	10-24	3/8-16	.406	5/16	3/8-16	15/32	500-2
303-4	1/4-20	7/16-14	.437	23/64	7/16-14	1/2	500-3
303-5	5/16-18	1/2-13	.484	27/64	1/2-13	9/16	500-4
303-6	3/8-16	9/16-12	.515	31/64	9/16-12	19/32	500-5
303-7	7/16-14	5/8-11	.656	17/32	5/8-11	23/32	500-6
303-8	1/2-13	3/4-10	.656	21/32	3/4-10	3/4	500-7
303-10	5/8-11	7/8-9	.687	49/64	7/8-9	13/16	500-8
303-12	3/4-10	1-8	.781	7/8	1-8	7/8	500-9

Fine Thread Sizes In 303 Stainless Steel

E-Z LOK Part No.	Internal Thread	External Thread	Length in.	Tap Drill Size	Tap Size	Minimum Full Thread Depth	Drive Tool Catalog No.
303-332	10-32	3/8-16	.406	5/16	3/8-16	15/32	500-2
303-428	1/4-28	7/16-14	.437	23/64	7/16-14	1/2	500-3
303-524	5/16-24	1/2-13	.484	27/64	1/2-13	9/16	500-4
303-624	3/8-24	9/16-12	.515	31/64	9/16-12	19/32	500-5
303-720	7/16-20	5/8-11	.656	17/32	5/8-11	23/32	500-6
303-820	1/2-20	3/4-10	.656	21/32	3/4-10	3/4	500-7

Metric Thread Sizes In 303 Stainless Steel – Metric Internal/Metric External

E-Z LOK Part No.	Internal Thread	External Thread	Length	Tap Drill Size	Tap Size	Minimum Full Thread Depth	Drive Tool Catalog No.
453-3	M3-0.5	M6-1.0	6.5mm	5.1mm	M6-1.0	7.8mm	—
453-4	M4-0.7	M8-1.25	7.5mm	6.9mm	M8-1.25	9.0mm	500-1
453-5	M5-0.8	M8-1.25	7.5mm	6.9mm	M8-1.25	9.0mm	500-1
453-6	M6-1.0	M10-1.5	10.5mm	8.6mm	M10-1.5	12.0mm	500-3
453-8	M8-1.25	M12-1.75	12.5mm	10.4mm	M12-1.75	14.5mm	500-4
453-10	M10-1.5	M16-2.0	17.0mm	14.0mm	M16-2.0	19.0mm	500-5
453-12	M12-1.75	M16-2.0	17.0mm	14.0mm	M16-2.0	19.0mm	500-6
453-16	M16-2.0	M24-3.0	20.0mm	21.0mm	M24-3.0	24.0mm	500-8

Metric Thread Sizes In 303 Stainless Steel— Metric Internal/U.S. External

E-Z LOK Part No.	Internal Thread	External Thread	Length in.	Tap Drill Size	Tap Size	Minimum Full Thread Depth	Drive Tool Catalog No.
653-6	M6-1.0	3/8-16	.406	5/16	3/8-16	15/32	500-3
653-8	M8-1.25	1/2-13	.484	27/64	1/2-13	9/16	500-4
653-10	M10-1.50	9/16-12	.515	31/64	9/16-12	19/32	500-5
653-10F	M10-1.25	9/16-12	.515	31/64	9/16-12	19/32	500-5
653-12	M12-1.75	3/4-10	.656	21/32	3/4-10	3/4	500-6
653-14	M14-2.0	7/8-9	.687	49/64	7/8-9	13/16	500-7
653-16	M16-2.0	1-8	.781	7/8	1-8	7/8	500-8

Coarse/Fine Thread Sizes in 316 Stainless Steel

E-Z LOK Part No.	Internal Thread	External Thread	Length in.	Tap Drill Size	Tap Size	Minimum Full Thread Depth	Drive Tool Catalog No.
316-008	8-32	5/16-18	.290	F	5/16-18	7/16	500-1
316-3	10-24	3/8-16	.406	5/16	3/8-16	15/32	500-2
316-332	10-32	3/8-16	.406	5/16	3/8-16	15/32	500-2
316-4	1/4-20	7/16-14	.437	23/64	7/16-14	1.125	500-3
316-5	5/16-18	1/2-13	.484	27/64	1/2-13	1.125	500-4
316-6	3/8-16	9/16-12	.515	31/64	9/16-12	1.125	500-5

Thread Inserts for Wood



External knife threads provide superior holding power in hard and soft woods, particle board and all wood products. Use wherever field assembly or disassembly could lead to thread erosion or stripping. The long pilot ensures straight driving into a drilled hole. Install with screwdriver, bolt and nut, tapping head, or E-Z LOK driving tool.



Brass Knife Thread Inserts – For Hard Wood

E-Z LOK Part No.	Internal Thread	Length in.	Major Diameter External Thread	Hole* Size	Drive Tool Catalog No.
400-004	4-40	.375	.328	1/4"	—
400-006	6-32	.375	.328	1/4"	500-006
400-008	8-32	.375	.328	1/4"	500-1
400-3	10-24	.500	.453	3/8"	500-2
400-332	10-32	.500	.453	3/8"	500-2
400-4	1/4-20	.500	.453	3/8"	500-3
400-428	1/4-28	.500	.453	3/8"	500-3
400-5	5/16-18	.625	.593	1/2"	500-4
400-524	5/16-24	.625	.593	1/2"	500-4
400-6	3/8-16	.625	.593	1/2"	500-5
400-624	3/8-24	.625	.593	1/2"	500-5
400-M3	M3-0.5	.375	.328	1/4"	500-006
400-M4	M4-0.7	.375	.328	1/4"	500-1
400-M5	M5-0.8	.500	.453	3/8"	500-2
400-M6	M6-1.0	.500	.453	3/8"	500-3
400-M8	M8-1.25	.625	.593	1/2"	500-5

Stainless Steel Knife Thread Inserts – For Wood

E-Z LOK Part No.	Internal Thread	Length in.	Major Diameter External Thread	Hole* Size	Drive Tool Catalog No.
400-008-CR	8-32	.375	.328	1/4"	500-1
400-3-CR	10-24	.500	.453	3/8"	500-2
400-4-CR	1/4-20	.500	.453	3/8"	500-3

*Hole size requirements may vary depending on material and tools. We recommend that you test before ordering. We gladly supply free samples.



An inexpensive insert for use in ready-to-assemble furniture, drawer pulls and wherever ease of assembly or avoidance of thread stripping is desired. Install with hex drive wrench or E-Z LOK drive tool.



Die Cast Zinc Alloy Hexdrive Thread Inserts – For Wood

E-Z LOK Part No.	Design	Internal Thread	Length	Hole* Size	Hex Dimensions	Drive Tool Catalog No.
800832-10	Flush	8-32	10mm	6mm	M4	8500
801024-13	Flush	10-24	13mm	7mm	M5	8600
801032-13	Flush	10-32	13mm	7mm	M5	8600
801420-13	Flush	1/4-20	13mm	9mm	M6	9000
801420-20	Flush	1/4-20	20mm	9mm	M6	9000
851618-20	Flush	5/16-18	20mm	11mm	M8	9100
851618-25	Flush	5/16-18	25mm	11mm	M8	9100
800610-13	Flush	M6-1.0	13mm	9mm	M6	9000
800610-20	Flush	M6-1.0	20mm	9mm	M6	9000
808125-13	Flush	M8-1.25	13mm	11mm	M8	9100
808125-20	Flush	M8-1.25	20mm	11mm	M8	9100
900832-10	Flanged	8-32	10mm	6mm	M4	8500
901024-11	Flanged	10-24	11mm	7mm	M5	8600
901024-20	Flanged	10-24	20mm	7mm	M5	8600
901032-11	Flanged	10-32	11mm	7mm	M5	8600
901032-13	Flanged	10-32	13mm	7mm	M5	8600
901032-20	Flanged	10-32	20mm	7mm	M5	8600
901420-13	Flanged	1/4-20	13mm	9mm	M6	9000
901420-20	Flanged	1/4-20	20mm	9mm	M6	9000
901420-25	Flanged	1/4-20	25mm	9mm	M6	9000
951618-13	Flanged	5/16-18	13mm	11mm	M8	9100
951618-25	Flanged	5/16-18	25mm	11mm	M8	9100
903816-13	Flanged	3/8-16	13mm	12mm	M10	9200
903816-25	Flanged	3/8-16	25mm	12mm	M10	9200
900610-13	Flanged	M6-1.0	13mm	9mm	M6	9000
900610-20	Flanged	M6-1.0	20mm	9mm	M6	9000
908125-13	Flanged	M8-1.25	13mm	11mm	M8	9100
908125-20	Flanged	M8-1.25	20mm	11mm	M8	9100

*Hole size requirements may vary depending on material and tools. We recommend that you test before ordering. We gladly supply free samples.

Alcoa Fastening Systems



For more than 120 years, the name Alcoa has been recognized worldwide as a strong leader in product quality and customer support. These strengths are found in every product manufactured for Alcoa Fastening Systems, offering the greatest breadth and depth of fastening system solutions in the industry.

Alcoa Fastening Systems (AFS) maintains company offices in the United States and in many other countries. AFS fastener distributors are also located in many of the world's industrial centers, where they provide a ready source of AFS fasteners, installation tools, tool parts, and application assistance.

Americas

Industrial Fastener Division
8001 Imperial Drive
Waco, TX 76712, USA
P.O. Box 8117
Waco, TX 76714-8117, USA
Tel: 800 388 4825
Fax: 800 798 4825

Installation Tool Division
1 Corporate Drive
Kingston, NY 12401, USA
Tel: 800 278 4825
Fax: 845 334 7333

AFS Industrial Distribution
Group Headquarters
1925 North MacArthur Drive
Tracy, CA 95376, USA
Tel: 209 839 3000
Fax: 209 839 3022

AFS Industrial
Distribution Group
5436 West 78th Street
Indianapolis, IN 46268, USA
Tel: 800 826 2884
Fax: 800 573 2645

Latin America Sales
Avenida Parque Lira
79-402 Tacubaya
Mexico C P 11850, USA
Tel: +52 55 5515 1776
Fax: +52 55 5277 7564

International Locations

India Operations
Level 6, Constantia 11
U.N. Brahachari Street
Kolkata 700,017 WB India
Tel: +91 33 4400 0612
Fax: +91 33 4400 0555

Japan/Korea Sales
Alcoa Japan Ltd.
#1013 NBF Hibiya Bldg.
Uchisaiwai-cho, Chiyoda-ku
Tokyo 100-1011
Phone: +81 3 3539 6577
Fax: +81 3 3539 6585

Melbourne Operations
1508 Centre Road
Clayton, Victoria, 3168
Australia
Tel: +61 3 8545 3333
Fax: +61 3 8545 3390

Shanghai Sales
Area A2, 1st Floor
No. 205 Taigu Road
Waigaocqiao Free Trade Zone
Shanghai, 200131, China
Tel: +86 21 5866 5080
Fax: +86 21 5868 1859

Telford Operations
Unit C, Stafford Park 7
Telford, Shropshire TF3, 3BQ
United Kingdom
Tel: +44 1952 2900 11
Fax: +44 1952 2904 59

Alcoa Fastening Systems
St Cosme Operations
9 rue de Cressonnieres
72110 Saint Cosme en Varais
France
Tel: +33 0 2.43.31.41.00
Fax: +33 0 2.43.31.41.41

Alcoa Fastening Systems
Kelkheim Operations
Industriestr. 6
65779 Kelkheim
Germany
Tel: +49 0 6195 8050
Fax: +49 0 6195 2001

alcoafasteners.com
afs-idg.com

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