

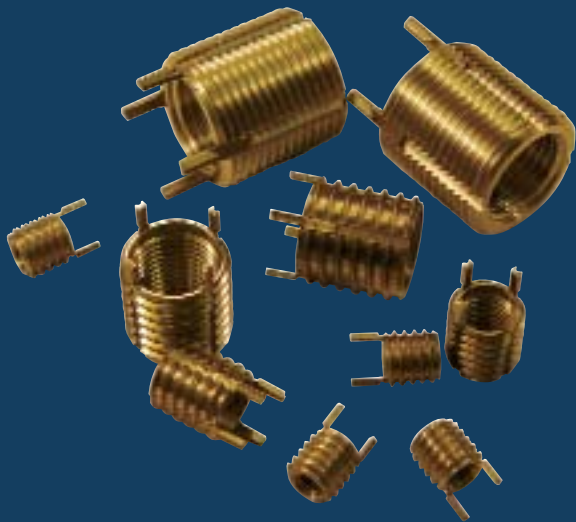
Alcoa
Fastening
Systems



Recoil® KEYSERT® Products

Solid Threaded Inserts, Tooling, & Kits





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Introduction

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.

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.

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

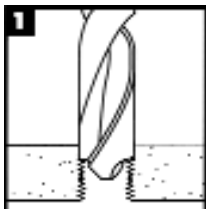
- Trucks, RV's
- Machinery, Small Engine
- Molds, Tool and Die
- MRO Tasks

Important Note

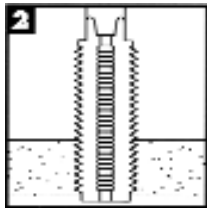
- Keyserts are not recommended for use in brittle materials, like cast iron or plastic

Installation and Removal

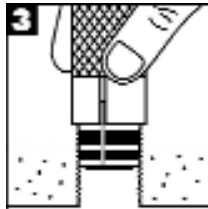
Installation



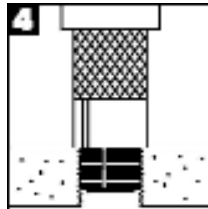
Drill out old threads with a standard drill. **Note: Drill is oversize - see charts for proper dimensions.** Chamfer the hole with a standard countersink (82°-100°).



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

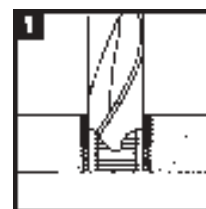


Screw in the insert until slightly below surface.

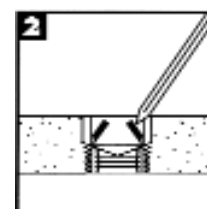


Drive keys down with several hammer taps on the proper installation tool.

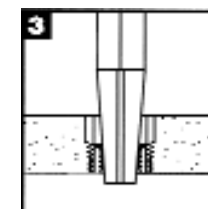
Removal



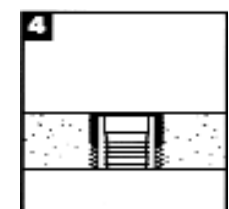
Drill out material between keys and internal thread with standard drill to specified depth (refer to charts for proper dimensions).



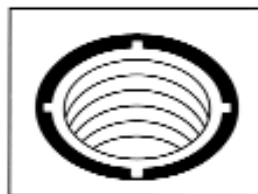
Deflect keys inward and break off.



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



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



Carbon Steel Bulk Keyserts

Thinwall - Inch Series - Carbon Steel

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

Heavy Duty - Inch Series - Carbon Steel

Insert Part No.	INSERT			INSTALLATION			REMOVAL			
	Internal Thread Class 2B or 3B	External Thread (Mod.) Class 2A	Length	Installation Tool Part No.	Tap Drill Size	C'Sink Diameter +.010/-.000	Thread Tap		Drill	
							Size Class 2B	Min. Depth	Size	Depth
*73582	8-32	5/16-18	0.31	70582	I	0.32	5/16-18	0.37	7/32	1/8
*73602	10-24	3/8-16	0.31	72190	Q	0.38	3/8-16	0.37	9/32	1/8
*74602	10-32									
*73042	1/4-20	7/16-14	0.37	72250	X	0.44	7/16-14	0.43	11/32	3/16
*74042	1/4-28									
*73052	5/16-18	1/2-13	0.43	72312	29/64	0.51	1/2-13	0.50	13/32	3/16
*74052	5/16-24									
*73062	3/8-16	9/16-12	0.50	72375	33/64	0.57	9/16-12	0.56	15/32	3/16
*74062	3/8-24									
*73072	7/16-14	5/8-11	0.62	72375	37/64	0.63	5/8-11	0.68	17/32	3/16
*74072	7/16-20									
*73082	1/2-13	3/4-16	0.62	72500	45/64	0.76	3/4-16	0.68	21/32	3/16
*74082	1/2-20									
*73092	9/16-12	3/4-16	0.81	72500	45/64	0.76	3/4-16	0.94	21/32	3/16
*74092	9/16-18									
*73102	5/8-11	7/8-14	0.87	72625	53/64	0.88	7/8-14	1.00	25/32	5/16
*74102	5/8-18									
73122	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	3/4-16									
73142	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	7/8-14									
73162	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	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									

* INDICATES PARTS NORMALLY AVAILABLE FROM STOCK.

LEAD TIMES AND MINIMUMS MAY APPLY ON ALL OTHER SIZES.

BOLD ITEMS HAVE A 3B INTERNAL THREAD CLASS, ALL OTHERS HAVE A 2B INTERNAL THREAD CLASS

Carbon Steel Bulk Keyserts

Technical Notes:

Material: Inserts - C1215 or equivalent

Keys - 302 Stainless Steel

Finish: Carbon Steel Inserts - Zinc Phosphate and

Ferrocoat 364-3 Oil

Stainless Steel Inserts - Passivated

Tolerances: ±0.10 inch or ±.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 Part No.	INSERT			Installation Tool Part No.	INSTALLATION			REMOVAL		
	Internal Thread Class 6H	External Thread Class 6g	Length		Tap Drill Size	C'Sink Diameter +.25/-.00	Thread Tap Size Class 6H		Drill	
							Min. Depth	Size	Depth	
*75051	M5-8	M8-1.25	8.0	72190	6.9	8.25	M8-1.25	9.5	5.50	4.00
*75061	M6-1	M10-1.25	10.0	72250	8.8	10.25	M10-1.25	11.5	7.50	4.75
*75081	M8-1.25	M12-1.25	12.0	72312	10.8	12.25	M12-1.25	13.5	9.50	4.75
77081	M8-1									
*75101	M10-1.5	M14-1.5	14.0	72375	12.8	14.25	M14-1.5	15.5	11.50	4.75
77101	M10-1.25									
*75121	M12-1.75	M16-1.5	16.0	72500	14.75	16.25	M16-1.5	17.5	13.50	4.75
78121	M12-1.25									

Heavy Duty - Metric - Carbon Steel

Insert Part No.	INSERT			Installation Tool Part No.	INSTALLATION			REMOVAL		
	Internal Thread Class 6H	External Thread Class 6g	Length		Tap Drill Size	C'Sink Diameter +.25/-.00	Thread Tap Size Class 6H		Drill	
							Min. Depth	Size	Depth	
75042	M4-7	M8-1.25	8.0	71042	6.90	8.25	M8-1.25	9.5	5.50	4.00
75052	M5-8	M10-1.25	10.0	72190	8.80	10.25	M10-1.25	12.5	7.50	4.75
75062	M6-1	M12-1.25	12.0	72250	10.80	12.25	M12-1.25	14.5	9.50	4.75
75082	M8-1.25	M14-1.5	14.0	72312	12.80	14.25	M14-1.5	16.5	11.50	4.75
77082	M8-1									
75102	M10-1.5	M16-1.5	16.0	72375	14.75	16.25	M16-1.5	18.5	13.50	4.75
77102	M10-1.25									
75122	M12-1.75	M18-1.5	18.0	72500	16.75	18.25	M18-1.5	20.5	15.50	4.75
78122	M12-1.25									
75142	M14-2	M20-1.5	20.0	71142	18.75	20.25	M20-1.5	22.5	17.50	4.75
77142	M14-1.5									
75162	M16-2	M22-1.5	22.0	72625	20.50	22.25	M22-1.5	24.5	17.75	6.35
77162	M16-1.5									
78182	M18-1.5	M24-1.5	24.0	71182	22.50	24.25	M24-1.5	26.5	19.75	6.35
75202	M20-2.5	M30-2	30.0	72875	28.00	30.25	M30-2	34.5	25.75	6.35
78202	M20-1.5									
78222	M22-1.5	M32-2	32.0	72875	30.00	32.25	M32-2	36.5	27.75	6.35
75242	M24-3	M33-2	33.0	71242	31.00	33.25	M33-2	37.5	28.75	6.35
77242	M24-2									

* INDICATES PARTS NORMALLY AVAILABLE FROM STOCK.

LEAD TIMES AND MINIMUMS MAY APPLY ON ALL OTHER SIZES.

Carbon Steel Bulk 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

Technical Notes:

Material: Inserts - C1215 or equivalent

Keys - 302 Stainless Steel

Finish: Carbon Steel Inserts - Zinc Phosphate and
Ferrocate 364-3 Oil

Stainless Steel Inserts - Passivated

Tolerances: ±0.10 inch or ±.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.

Solid - Inch Series - Carbon Steel

Insert Part No.	External Thread (Mod.) Class 2A	Length	Installation Tool Part No.	Tap Drill Size	C'Sink Diameter +.010/-.000	INSTALLATION		REMOVAL	
						Thread Tap		Drill	
						Size Class 2B	Min. Depth	Size	Depth
73054	5/16-18	0.31	70054	I	0.32	5/16-18	0.37	7/32	1/8
73064	3/8-16	0.31	70064	Q	0.38	3/8-16	0.37	9/32	1/8
73074	7/16-14	0.37	70074	X	0.44	7/16-14	0.43	11/32	3/16
73084	1/2-13	0.43	70084	29/64	0.51	1/2-13	0.50	13/32	3/16
73094	9/16-12	0.50	70094	33/64	0.57	9/16-12	0.56	15/32	3/16
73104	5/8-11	0.62	70104	37/64	0.63	5/8-11	0.68	17/32	3/16
73124	3/4-16	0.68	70124	45/64	0.76	3/4-16	0.68	21/32	3/16
73144	7/8-14	0.87	70144	53/64	0.88	7/8-14	1.00	25/32	5/16
74164	1-12	0.87	70164	15/16	1.02	1-12	1.00	27/32	5/16
74184	1 1/8-12	1.12	70184	1 1/16	1.14	1 1/8-12	1.31	31/32	5/16
74204	1 1/4-12	1.25	70204	1 3/16	1.27	1 1/4-12	1.44	1 3/32	5/16
74224	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 Steel

Insert Part No.	External Thread Class 6g	Length	Installation Tool Part No.	Tap Drill Size	C'Sink Diameter +.25/-.00	INSTALLATION		REMOVAL	
						Thread Tap		Drill	
						Size Class 6H	Min. Depth	Size	Depth
75084	M8-1.25	8.0	71084	6.90	8.25	M8-1.25	9.5	5.50	4.00
77104	M10-1.25	10.0	71104	8.80	10.25	M10-1.25	12.5	7.50	4.75
78124	M12-1.25	12.0	71124	10.80	12.25	M12-1.25	14.5	9.50	4.75
77144	M14-1.5	14.0	71144	12.80	14.25	M14-1.5	16.5	11.50	4.75
77164	M16-1.5	16.0	71164	14.75	16.25	M16-1.5	18.5	13.50	4.75
78184	M18-1.5	18.0	71184	16.75	18.25	M18-1.5	20.5	15.50	4.75
78204	M20-1.5	20.0	71204	18.75	20.25	M20-1.5	22.5	17.50	4.75
78224	M22-1.5	22.0	71224	20.50	22.25	M22-1.5	24.5	17.75	6.35
78244	M24-1.5	24.0	71244	22.50	24.25	M24-1.5	26.5	19.75	6.35
77304	M30-2	30.0	71304	28.00	30.25	M30-2	34.5	25.75	6.35
77322	M32-2	32.0	71322	30.00	32.25	M32-2	36.5	27.75	6.35
77332	M33-2	33.0	71332	31.00	33.25	M33-2	37.5	28.75	6.35

ALL ITEMS ON THIS PAGE ARE CONSIDERED NON-STOCK ITEMS. LEAD TIMES AND MINIMUMS MAY APPLY.



Carbon Steel Bulk Keyserts

Extra Heavy Duty - Inch Series - Carbon Steel

Insert Part No.	INSERT			INSTALLATION			REMOVAL			
	Internal Thread Class 2B	External Thread (Mod.) Class 2A	Length	Installation Tool Part No.	Tap Drill Size	C/Sink Diameter +.010/-.000	Thread Tap		Drill	
							Size Class 2B	Min. Depth	Size	Depth
73563	6-32	5/16-18	0.31	70563	I	0.32	5/16-18	0.37	7/32	1/8
73583	8-32	3/8-16	0.31	70583	Q	0.38	3/8-16	0.37	9/32	1/8
73603	10-24	7/16-14	0.31	70603	X	0.44	7/16-14	0.37	11/32	3/16
74603	10-32									
73043	1/4-20	1/2-13	0.37	70043	29/64	0.51	1/2-13	0.43	13/32	3/16
74043	1/4-28									
73053	5/16-18	9/16-12	0.43	70053	33/64	0.57	9/16-12	0.50	15/32	3/16
74053	5/16-24									
73063	3/8-16	5/8-11	0.50	70063	37/64	0.63	5/8-11	0.56	17/32	3/16
74063	3/8-24									
73073	7/16-14	3/4-16	0.62	70073	45/64	0.76	3/4-16	0.68	21/32	3/16
74073	7/16-20									
73083	1/2-13	7/8-14	0.68	70083	53/64	0.88	7/8-14	0.75	25/32	5/16
74083	1/2-20									
73093	9/16-12	7/8-14	0.81	70093	53/64	0.88	7/8-14	0.94	25/32	5/16
74093	9/16-18									
73103	5/8-11	1-12	0.87	70103	15/16	1.02	1-12	1.00	27/32	5/16
74103	5/8-18									
73123	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	3/4-16									
73143	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	7/8-14									
73163	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	1-12									

ALL ITEMS ON THIS PAGE ARE CONSIDERED NON-STOCK ITEMS. LEAD TIMES AND MINIMUMS MAY APPLY.

Carbon Steel Bulk Keyserts

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	RKK 1 1/4-12
73042	RKK 1/4-20	73602	RKK 10-24	74242	RKK 1 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	KNM 10x1.5F
73081	RKKA 1/2-13	74071	RKKA 7/16-20	75121	KNM 12x1.75F
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	RKK 1 1/4-7	74162-14	RKK 1-14	78202	KNHM 20x1.5F
73242	RKK 1 1/2-6	74162	RKK 1-12	78222	KNHM 22x1.5F
73582	RKK 8-32	74182	RKK 1 1/8-12	77242	KNHM 24x2F

Stainless Steel Bulk Keyserts

Thinwall - Inch Series - Stainless Steel

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

Heavy Duty - Inch Series - Stainless Steel

Insert Part No.	INSERT			INSTALLATION			REMOVAL			
	Internal Thread Class 3B	External Thread (Mod) Class 2A or 3A	Length	Installation Tool Part No.	Tap Drill Size	C'Sink Diameter +.010/-.000	Thread Tap		Drill	
							Size Class 2B	Min. Depth	Size	Depth
*73587	8-32	5/16-18	0.31	70582	I	0.32	5/16-18	0.37	7/32	1/8
*73607	10-24	3/8-16	0.31	72190	Q	0.38	3/8-16	0.37	9/32	1/8
*74607	10-32									
*73047	1/4-20	7/16-14	0.37	72250	X	0.44	7/16-14	0.43	11/32	3/16
*74047	1/4-28									
*73057	5/16-18	1/2-13	0.43	72312	29/64	0.51	1/2-13	0.50	13/32	3/16
*74057	5/16-24									
*73067	3/8-16	9/16-12	0.50	72375	33/64	0.57	9/16-12	0.56	15/32	3/16
*74067	3/8-24									
*73077	7/16-14	5/8-11	0.62	72375	37/64	0.63	5/8-11	0.68	17/32	3/16
74077	7/16-20									
*73087	1/2-13	3/4-16	0.62	72500	45/64	0.76	3/4-16	0.68	21/32	3/16
*74087	1/2-20									
73097	9/16-12	3/4-16	0.81	72500	45/64	0.76	3/4-16	0.94	21/32	3/16
74097	9/16-18									
73107	5/8-11	7/8-14	0.87	72625	53/64	0.88	7/8-14	1.00	25/32	5/16
74107	5/8-18									
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
74127	3/4-16									
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
74147	7/8-14									
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
74167	1-12									

* INDICATES PARTS NORMALLY AVAILABLE FROM STOCK AND INTERNAL THREAD CLASS 3B.

LEAD TIMES AND MINIMUMS MAY APPLY ON ALL OTHER SIZES.

BOLD ITEMS HAVE A 3A EXTERNAL THREAD CLASS, ALL OTHERS HAVE A 2A EXTERNAL THREAD CLASS

Stainless Steel Bulk Keyserts

Technical Notes:

Material: Inserts - 303 Stainless Steel

Keys - 302 Stainless Steel

Finish: Carbon Steel Inserts - Zinc Phosphate and
Ferrocate 364-3 Oil

Stainless Steel Inserts - Passivated

Tolerances: ± 0.10 inch or $\pm .25$ 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 - Stainless Steel

Insert Part No.	INSERT			Installation Tool Part No.	INSTALLATION			REMOVAL		
	Internal Thread Class 6H	External Thread Class 6g	Length		Top Drill Size	C'Sink Diameter +.25/- .00	Thread Top		Drill	
							Size Class 6H	Min. Depth	Size	Depth
*75056	M5-.8	M8-1.25	8.0	72190	6.9	8.25	M8-1.25	9.5	5.50	4.00
*75066	M6-1	M10-1.25	10.0	72250	8.8	10.25	M10-1.25	11.5	7.50	4.75
*75086 77086	M8-1.25 M8-1	M12-1.25	12.0	72312	10.8	12.25	M12-1.25	13.5	9.50	4.75
*75106 77106	M10-1.5 M10-1.25	M14-1.5	14.0	72375	12.8	14.25	M14-1.5	15.5	11.50	4.75
*75126 78126	M12-1.75 M12-1.25	M16-1.5	16.0	72500	14.75	16.25	M16-1.5	17.5	13.50	4.75

Heavy Duty - Metric - Stainless Steel

Insert Part No.	INSERT			Installation Tool Part No.	INSTALLATION			REMOVAL		
	Internal Thread Class 6H	External Thread Class 6g	Length		Top Drill Size	C'Sink Diameter +.25/- .00	Thread Top		Drill	
							Size Class 6H	Min. Depth	Size	Depth
75047	M4-.7	M8-1.25	8.0	71042	6.90	8.25	M8-1.25	9.5	5.50	4.00
75057	M5-.8	M10-1.25	10.0	72190	8.80	10.25	M10-1.25	12.5	7.50	4.75
75067	M6-1	M12-1.25	12.0	72250	10.80	12.25	M12-1.25	14.5	9.50	4.75
75087 77087	M8-1.25 M8-1	M14-1.5	14.0	72312	12.80	14.25	M14-1.5	16.5	11.50	4.75
75107 77107	M10-1.5 M10-1.25	M16-1.5	16.0	72375	14.75	16.25	M16-1.5	18.5	13.50	4.75
75127 78127	M12-1.75 M12-1.25	M18-1.5	18.0	72500	16.75	18.25	M18-1.5	20.5	15.50	4.75
75147 77147	M14-2 M14-1.5	M20-1.5	20.0	71142	18.75	20.25	M20-1.5	22.5	17.50	4.75
75167 77167	M16-2 M16-1.5	M22-1.5	22.0	72625	20.50	22.25	M22-1.5	24.5	17.75	6.35
78187	M18-1.5	M24-1.5	24.0	71182	22.50	24.25	M24-1.5	26.5	19.75	6.35
75207 78207	M20-2.5 M20-1.5	M30-2	30.0	72875	28.00	30.25	M30-2	34.5	25.75	6.35
78227	M22-1.5	M32-2	32.0	72875	30.00	32.25	M32-2	36.5	27.75	6.35
75247 77247	M24-3 M24-2	M33-2	33.0	71242	31.00	33.25	M33-2	37.5	28.75	6.35

* INDICATES PARTS NORMALLY AVAILABLE FROM STOCK.

LEAD TIMES AND MINIMUMS MAY APPLY ON ALL OTHER SIZES.



Tooling & 4-Piece Range Kits

TOOLING-ONLY RANGE KIT

Keysert Tooling Range Kit

Part No. 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"	M20-22
72100	1"	N/A



4-PIECE RANGE KITS

UNC Carbon Steel Thinwall Range Kit

Part No. 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 Range Kit

Part No. 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 Range Kit

Part No. 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 Range Kit

Part No. 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 Range Kit
Part No. 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 Range Kit
Part No. 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 Range Kit
Part No. 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 Range Kit
Part No. 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

6-Piece & Master Range Kits

MASTER RANGE KITS

**UNC Carbon Steel Heavy-Duty Range Kit
Part No. 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 Range Kit
Part No. 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 Range Kit
Part No. 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 Range Kit
Part No. 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



Recoil brand threaded inserts, installation tooling, taps, gauges, and thread-repair kits accommodate a wide range of manufacturing and aftermarket applications in the automotive, aerospace, electronics, shipbuilding, defense, power-generation, and transportation industries. Offering a broad selection of sizes, materials, finishes, and coatings, Recoil inserts are manufactured in all of

the popular thread forms and in accordance with the world's most stringent quality standards, including AS9100, ISO9001, QS9000, and others. Competitively priced, these products deliver outstanding performance, durability, and value for thousands of uses. Alcoa Fastening Systems (AFS) also designs and manufactures non-standard Recoil inserts to meet special requirements.

Alcoa Fastening Systems Commercial Products: A Global Organization

Alcoa Fastening Systems maintains company offices in the United States and Canada, with offices in many other countries. Authorized AFS distributors are also

located in many of the world's industrial centers, where they provide a ready source of fasteners, inserts, installation tools, tool parts, and application assistance.

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Alcoa Fastening Systems



One Great ConnectionSM