A-K SERIES™ INSERT
KNURLED THREADED INSERTS

A-K SERIES INSERT PROFILE

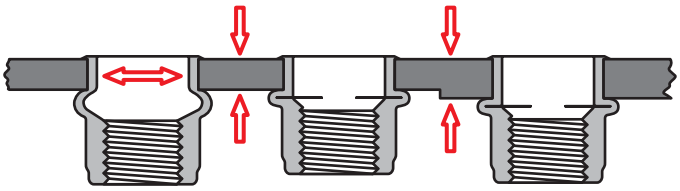
The **A-K Series** Insert features a knurled body and a reduced profile head to allow for virtually flush installation. Countersink drilling or dimpling of the parent material can be eliminated. The A-K Series is designed to be used with Grade 5 or Metric Class 8.8/9.8 mating screws.

The A-K Series Insert can be installed using AVK's ARO brand pneumatic tools or AVK's SPP™ pneumatic/hydraulic tooling. These tools can be located at any position on your assembly line. The A-K Series Insert can be installed either before or after finish.

SPINWALL TECHNOLOGY™

HOW HOLE FILL WORKS FOR YOU

As the A-K Series is installed, the knurled body expands 360° FILLING THE HOLE. This feature provides exceptional torque strength and vibration resistance.



The installation tool then continues to install the insert forming a backside flange even in multiple or variable thickness materials WITHOUT ADJUSTMENT.

DESIGN BENEFITS

- VIRTUALLY FLUSH INSTALLATIONS are achieved without special hole preparation due to the A-K Series minimal head profile.
- EXCEPTIONAL TORQUE STRENGTH is achieved as the insert's knurled body expands FILLING THE HOLE.
- QUALITY INSTALLATIONS even in variable thickness materials are assured by AVK's spin/spin ARO pneumatic tools and our pneumatic/hydraulic SPP2 Tool™.
- SUPERIOR THREAD STRENGTH is provided due to our internal rolled thread manufacturing process.
- THREADS GAUGE before and after installation due to the increased cross-sectional thickness of the thread area. Thread dilation is prevented.
- INVENTORY REDUCTION is possible because of the A-K Series' wide grip range capacity. It is 2.5 times greater than conventional rivet nuts.
- SUPERIOR CORROSION RESISTANCE is provided by our standard zinc/yellow trivalent finish (120 hours. Salt spray to white corrosion). For exceptional corrosion protection we offer a trivalent tin/zinc alloy finish.
- AVAILABLE in steel. Additional materials such as aluminum, brass and monel are available by special order. Contact an AVK Sales Representative for details.

ADDITIONAL DESIGN TYPES

CLOSED END

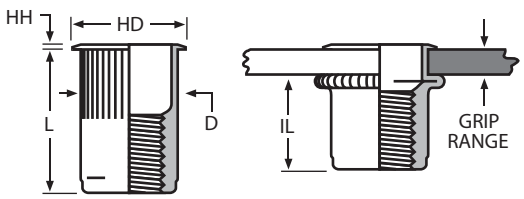
Thread area is enclosed eliminating leakage past the threads from either side of the application.

ADVANCE COMPONENTS

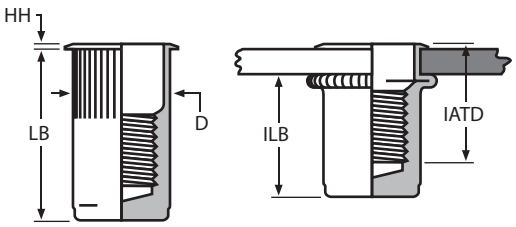
UNIFIED (INCH) AND METRIC THREAD SIZES

A-K™ SERIES INSERT
KNURLED THREADED INSERTS

OPEN END TYPE



CLOSED END TYPE



Thread Specifications: Unified 2B/21 per ASME B1.1
Metric 6H/21 per ASME B1.13M

THREAD SIZE	THREAD CALL OUT	GRIP RANGE	GRIP CALL OUT	HOLE SIZE +.006 / -.000	HD ±.015	HH ±.003	L ±.015	D MAX.	IL MAX.	LB MAX.	ILB MAX.	IATD* MAX.
6-32 UNC	632	.020 - .080	80	17/64 (.2656)	.310	.019	.420	.265	.305	.755	.640	.610
6-32 UNC	632	.080 - .130	130	17/64 (.2656)	.310	.019	.470	.265	.305	.755	.580	.670
8-32 UNC	832	.020 - .080	80	17/64 (.2656)	.310	.019	.420	.265	.305	.755	.640	.610
8-32 UNC	832	.080 - .130	130	17/64 (.2656)	.310	.019	.470	.265	.305	.755	.580	.670
10-24 UNC	1024	.020 - .130	130	19/64 (.2969)	.340	.019	.475	.296	.315	1.005	.845	.730
10-24 UNC	1024	.130 - .225	225	19/64 (.2969)	.340	.019	.585	.296	.315	1.005	.735	.840
10-32 UNF	1032	.020 - .130	130	19/64 (.2969)	.340	.019	.475	.296	.315	1.005	.845	.730
10-32 UNF	1032	.130 - .225	225	19/64 (.2969)	.340	.019	.585	.296	.315	1.005	.735	.840
1/4-20 UNC	420	.027 - .165	165	25/64 (.3906)	.455	.023	.580	.390	.380	1.205	1.005	.895
1/4-20 UNC	420	.165 - .260	260	25/64 (.3906)	.455	.023	.680	.390	.380	1.205	.905	1.035
5/16-18 UNC	518	.027 - .150	150	17/32 (.5312)	.595	.023	.690	.530	.470	1.405	1.175	.995
5/16-18 UNC	518	.150 - .312	312	17/32 (.5312)	.595	.023	.805	.530	.425	1.405	1.025	1.120
3/8-16 UNC	616	.027 - .150	150	17/32 (.5312)	.595	.023	.690	.530	.470	1.405	1.175	.995
3/8-16 UNC	616	.150 - .312	312	17/32 (.5312)	.595	.023	.805	.530	.425	1.405	1.025	1.120

THREAD SIZE	THREAD CALL OUT	GRIP RANGE	GRIP CALL OUT	HOLE SIZE +0,15 / -0,00	HD ±0,38	HH ±0,08	L ±0,38	D MAX.	IL MAX.	LB MAX.	ILB MAX.	IATD* MAX.
M4 x 0,7 ISO	470	0,50 - 2,00	2.0	6,75	7,87	0,48	10,67	6,73	7,75	19,18	16,26	15,49
M4 x 0,7 ISO	470	2,00 - 3,30	3.3	6,75	7,87	0,48	11,94	6,73	7,75	19,18	14,73	17,02
M5 x 0,8 ISO	580	0,50 - 3,30	3.3	7,60	8,64	0,48	12,07	7,52	8,00	25,53	21,46	18,54
M5 x 0,8 ISO	580	3,30 - 5,70	5.7	7,60	8,64	0,48	14,86	7,52	8,00	25,53	18,67	21,34
M6 x 1,0 ISO	610	0,70 - 4,20	4.2	10,00	11,56	0,58	14,73	9,91	9,65	30,61	25,53	22,73
M6 x 1,0 ISO	610	4,20 - 6,60	6.6	10,00	11,56	0,58	17,27	9,91	9,65	30,61	22,99	26,29
M8 x 1,25 ISO	8125	0,70 - 3,80	3.8	13,50	15,11	0,58	17,53	13,46	11,94	35,69	29,85	25,27
M8 x 1,25 ISO	8125	3,80 - 7,90	7.9	13,50	15,11	0,58	20,45	13,46	10,80	35,69	26,04	28,45
M10 x 1,5 ISO	1015	0,70 - 3,80	3.8	13,50	15,11	0,58	17,53	13,46	11,94	35,69	29,85	25,27
M10 x 1,5 ISO	1015	3,80 - 7,90	7.9	13,50	15,11	0,58	20,45	13,46	10,80	35,69	26,04	28,45

NOTE 1: Grip range can be affected by parent material density and actual hole size. AVK suggests trial installations to determine optimum grip.
NOTE 2: Additional UNF fine threads are available.
NOTE 3: Additional grip lengths are available.

PART NUMBERING SYSTEM

SAMPLE NUMBER: AKS3T-420-165

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PRODUCT SERIES	MATERIAL	FINISH	THREAD CALL OUT	GRIP CALL OUT	TYPE

MATERIAL

CALL OUT	GRADE
S	Steel 1010/1008
A	Aluminum 5056
B	Brass 270/260
M	Monel 400

FINISH

CALL OUT	SPECIFICATION
3T	ZINC TRIVALENT PER ASTM-B-633, FE/ZN .0003 (8µ) WITH CLEAR PROTECTIVE COATING
4T	YELLOW ZINC TRIVALENT PER ASTM-B-633, FE/ZN .0003 (8µ) WITH CLEAR PROTECTIVE COATING
9T	TIN ZINC TRIVALENT PER ESP-P-004, .0003 (8µ) WITH CLEAR PROTECTIVE COATING

TYPE

CALL OUT	TYPE
BLANK	Open End
B	Closed End

ADVANCE COMPONENTS