



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.

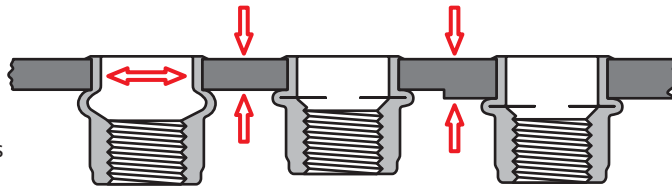
The A-K Series Insert can be installed using AVK's ARO brand pneumatic tools or AVK's SPP™ pneumatic/hydraulic tooling. These tools can be located at any position on your assembly line. The A-K Series Insert can be installed either before or after finish.



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. See page 13.

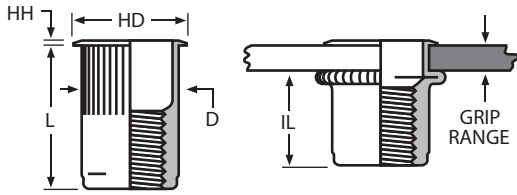


UNIFIED (INCH) AND METRIC THREAD SIZES

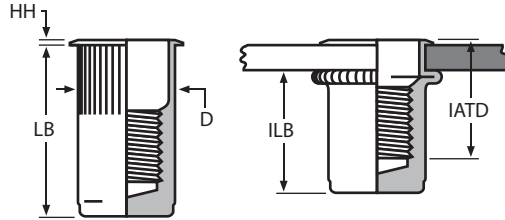


INSERT
KNURLED THREADED INSERTS

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 +.015 / -.000	HD ±.038	HH ±.008	L ±.038	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.

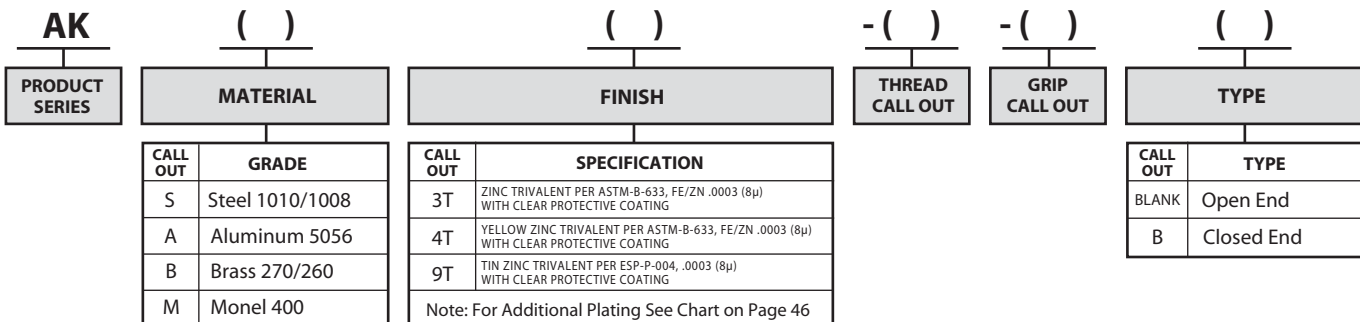
NOTE 2: Additional UNF fine threads are available. Contact an AVK Sales Representative for details.

NOTE 3: Additional grip lengths are available. Contact an AVK Sales Representative for details. *Dimensions in minimum grip condition.

NOTE 4: Contact an AVK Sales Representative regarding optional materials.

PART NUMBERING SYSTEM

SAMPLE NUMBER: AKS3T-420-165



For air tool selection see pages 30 and 31