

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 SPPTM pneumatic/hydraulic tools. 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.

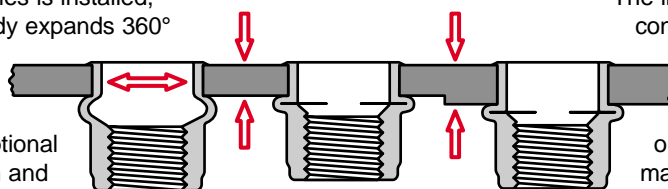
SPINWALL TECHNOLOGYTM

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 SPPTM pneumatic/hydraulic tools.
- ◆ **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 dichromate finish (96 hrs. salt spray to white corrosion). For exceptional corrosion protection we offer a tin/zinc alloy finish.
- ◆ **AVAILABLE** in Steel from stock. Additional materials such as aluminum, brass and monel are available by special order. Contact AVK for details.

ADDITIONAL DESIGN TYPES

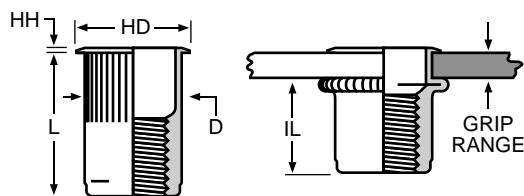
CLOSED END

Thread area is enclosed eliminating leakage past the threads from either side of the application.
See page 11.

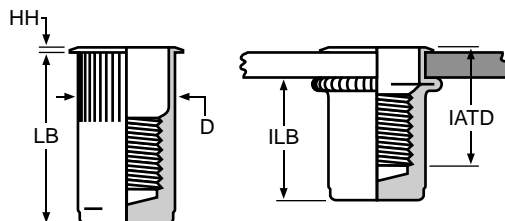


UNIFIED (INCH) AND METRIC THREAD SIZES

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 ±.010	HH ±.002	L ±.015	D MAX.	IL MAX.	LB ±.015	ILB MAX.	IATD* MAX.
6-32 UNC	632	.020-.080	80	17/64 (.2656)	.310	.019	.420	.265	.305	.740	.640	.610
6-32 UNC	632	.080-.130	130	17/64 (.2656)	.310	.019	.470	.265	.305	.740	.580	.670
8-32 UNC	832	.020-.080	80	17/64 (.2656)	.310	.019	.420	.265	.305	.740	.640	.610
8-32 UNC	832	.080-.130	130	17/64 (.2656)	.310	.019	.470	.265	.305	.740	.580	.670
10-24 UNC	1024	.020-.130	130	19/64 (.2969)	.340	.019	.475	.296	.315	.990	.845	.730
10-24 UNC	1024	.130-.225	225	19/64 (.2969)	.340	.019	.585	.296	.315	.990	.735	.840
10-32 UNF	1032	.020-.130	130	19/64 (.2969)	.340	.019	.475	.296	.315	.990	.845	.730
10-32 UNF	1032	.130-.225	225	19/64 (.2969)	.340	.019	.585	.296	.315	.990	.735	.840
1/4-20 UNC	420	.027-.165	165	25/64 (.3906)	.455	.022	.580	.390	.380	1.190	1.005	.895
1/4-20 UNC	420	.165-.260	260	25/64 (.3906)	.455	.022	.680	.390	.380	1.190	.905	1.035
5/16-18 UNC	518	.027-.150	150	17/32 (.5312)	.595	.022	.690	.530	.470	1.390	1.175	.995
5/16-18 UNC	518	.150-.312	312	17/32 (.5312)	.595	.022	.805	.530	.425	1.390	1.025	1.120
3/8-16 UNC	616	.027-.150	150	17/32 (.5312)	.595	.022	.690	.530	.470	1.390	1.175	.995
3/8-16 UNC	616	.150-.312	312	17/32 (.5312)	.595	.022	.805	.530	.425	1.390	1.025	1.120

THREAD SIZE	THREAD CALL OUT	GRIP RANGE	GRIP CALL OUT	HOLE SIZE +.015 -.000	HD ±.025	HH ±.005	L ±.038	D MAX	IL MAX	LB ±.038	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	18,80	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	18,80	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	25,15	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	25,15	18,67	21,34
M6 x 1,0 ISO	610	0,70-4,20	4.2	10,00	11,56	0,55	14,73	9,91	9,65	30,23	25,53	22,73
M6 x 1,0 ISO	610	4,20-6,60	6.6	10,00	11,56	0,55	17,27	9,91	9,65	30,23	22,99	26,29
M8 x 1,25 ISO	8125	0,70-3,80	3.8	13,50	15,11	0,55	17,53	13,46	11,94	35,31	29,85	25,27
M8 x 1,25 ISO	8125	3,80-7,90	7.9	13,50	15,11	0,55	20,45	13,46	10,80	35,31	26,04	28,45
M10 x 1,5 ISO	1015	0,70-3,80	3.8	13,50	15,11	0,55	17,53	13,46	11,94	35,31	29,85	25,27
M10 x 1,5 ISO	1015	3,80-7,90	7.9	13,50	15,11	0,55	20,45	13,46	10,80	35,31	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 AVK for details. **NOTE 3:** Additional grip lengths are available in certain thread sizes. Contact AVK for details. * Dimensions in minimum grip condition.

PART NUMBERING SYSTEM

AK		()		()		-()-()		()	
MATERIAL		FINISH		Thread Call Out		Grip Call Out		TYPE	
Product Series	CALL OUT	Grade	CALL OUT	Specification	Thread Call Out	Grip Call Out	CALL OUT	Type	
	S	Steel 1010/1008	4	FOR STEEL - ZINC/YELLOW DICHROMATE PER ASTM-B-633 TYPE II FE/ZN .0003 (8μ) WITH CLEAR PROTECTIVE COATING			BLANK	Open End	
* BY SPECIAL ORDER		* BY SPECIAL ORDER		SAMPLE NUMBER:		AKS4-420-165			
A	Aluminum 5056	9	FOR STEEL - YELLOW TIN ZINC PER BPS-TZ-327 .0003 (8μ) WITH CLEAR PROTECTIVE COATING				B	Closed End	
B	Brass 270/260	1	FOR ALUMINUM OR MONEL - CLEAR PROTECTIVE COATING						
M	Monel 400	2	FOR BRASS - CAD PER QQP 416 TYPE I, CLASS 3 WITH CLEAR PROTECTIVE COATING						

* Special order items are subject to minimum order requirements. Contact AVK for details.

For air tool selection see pages 28 and 33