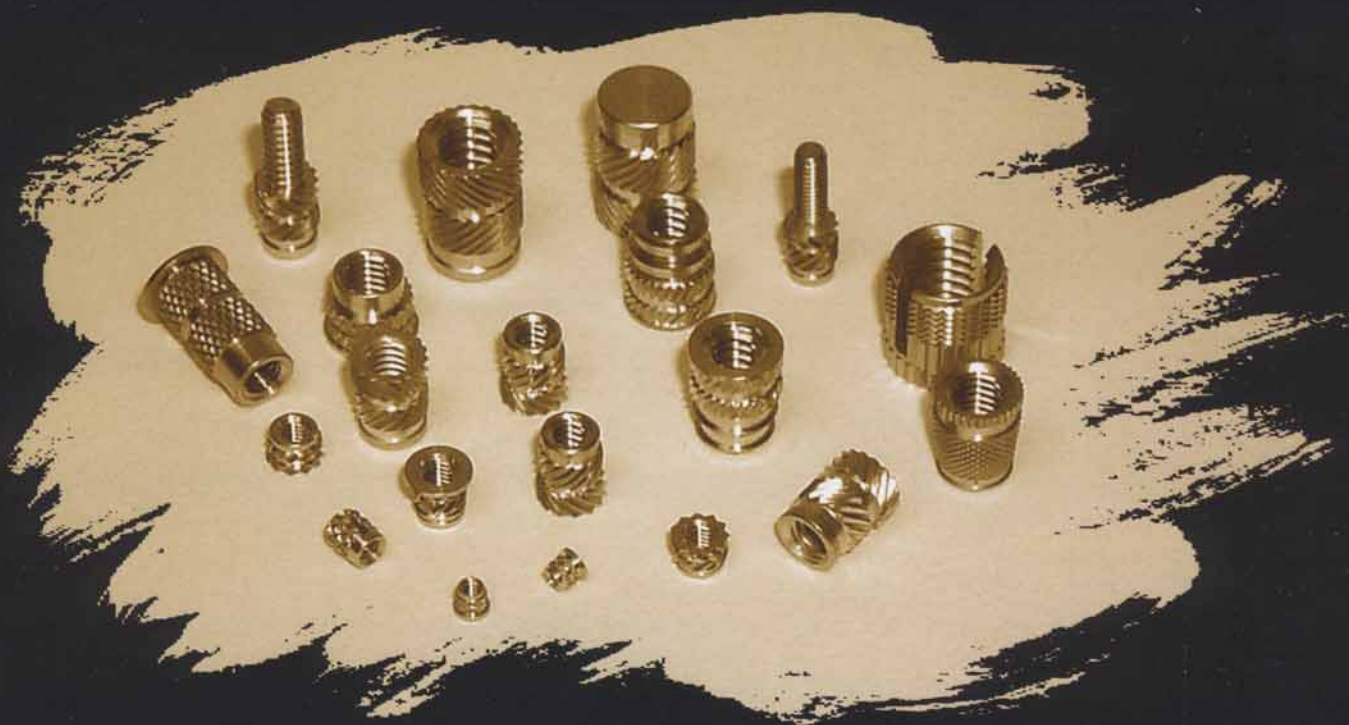


AVK INDUSTRIAL PRODUCTS



**THREADED INSERTS
FOR PLASTIC**



INTRODUCTION

AVK INDUSTRIAL PRODUCTS, AN SPS TECHNOLOGIES COMPANY, IS AN ISO 9001/QS9000 registered company located in Valencia, CA and is the world class leader in engineered products.

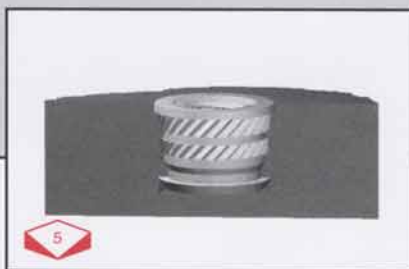
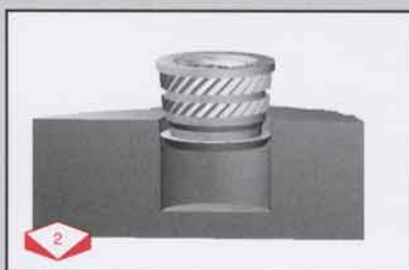


AVK THREADED INSERTS FOR PLASTIC

AVK inserts for plastic can be installed "post-mold" into various plastic structures using heat and ultrasonic installation equipment. A variety of insert types allow for the installation of a strong and durable thread for applications that require repeated assembly and disassembly. In addition, AVK inserts can improve the compression strength of plastic assembly joints, and can provide a load-bearing surface that helps to protect plastic structures. Special configurations for unique applications are supported by a large AVK engineering and development center, and are qualified by a mature AVK destructive and non-destructive fastener test lab.

ISO 9001-1994
QS9000-1998
Certified No.
005472

BRASS INSERT APPLICATIONS



WHY USE AVK?

AVK's threaded inserts for plastic, machined from brass or other materials, are designed to provide strong metal threads in plastic components. This product is especially useful in SMC, injection molding, rotational or blow molded plastics markets which continue to experience growth.

Threaded inserts for plastics are available in Types 2, 3, 4, Flanged and Unflanged. These inserts are available in various types and styles to suit almost any threaded assembly application in plastics.

A-J Type 2

Threaded Inserts for Plastic

- ◆ Installation by heat or ultrasonic equipment
- ◆ Designed for tapered hole applications
- ◆ For installation into ABS, Nylon, Polycarbonates and Structural Foam

A-J Type 4

Threaded Inserts for Plastic

- ◆ Designed for straight hole applications
- ◆ Self aligning
- ◆ Installation by heat or ultrasonic equipment
- ◆ Flanged version provides load bearing surface as well as a contact area for electrical connections
- ◆ For installation into ABS, Nylon, Polycarbonates and Structural Foam

A-J Type 3

Threaded Inserts for Plastic

- ◆ Symmetrical design assists automated assembly
- ◆ Installation by heat or ultrasonic equipment
- ◆ For installation into ABS, Nylon, Polycarbonates and Structural Foam

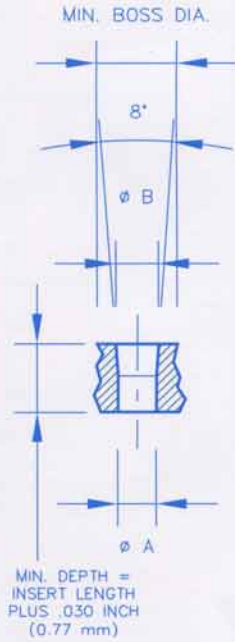
A-J TYPE 2 FEATURES:



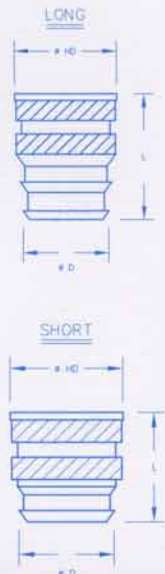
- ◆ Installation by heat or ultrasonic equipment
- ◆ Designed for tapered hole applications
- ◆ For installation into ABS, Nylon, Polycarbonates and Structural Foam

THREADED INSERT FOR PLASTICS

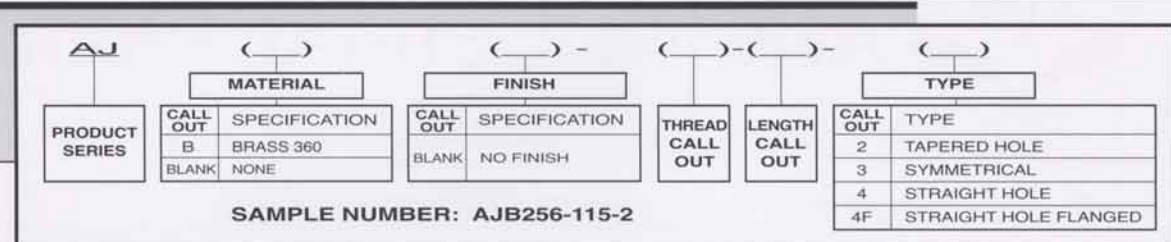
Inch Thread Size	Part Number	HOLE SIZE RECOMMENDATIONS					
		Diameters			Length		
		H.D. + .005	D + .004	L + .004	A + .001	B + .001	Minimum Boss Diameter
2-56 UNC	AJB256-115-2	.141	.123	.115	.118	.129	.282
2-56 UNC	AJB256-188-2	.141	.112	.188	.107	.123	.282
4-40 UNC	AJB440-135-2	.172	.157	.135	.153	.163	.344
4-40 UNC	AJB440-219-2	.172	.146	.219	.141	.159	.344
6-32 UNC	AJB632-150-2	.219	.203	.150	.199	.209	.438
6-32 UNC	AJB632-250-2	.219	.190	.250	.185	.206	.438
8-32 UNC	AJB832-185-2	.250	.230	.185	.226	.236	.500
8-32 UNC	AJB832-312-2	.250	.213	.312	.208	.234	.500
10-24 UNC	AJB1024-225-2	.297	.272	.225	.267	.278	.594
10-24 UNC	AJB1024-375-2	.297	.251	.375	.246	.277	.594
10-32 UNF	AJB1032-225-2	.297	.272	.225	.267	.278	.594
10-32 UNF	AJB1032-375-2	.297	.251	.375	.246	.277	.594
1/4-20 UNC	AJB420-300-2	.375	.354	.300	.349	.363	.750
1/4-20 UNC	AJB420-500-2	.375	.332	.500	.321	.363	.750
1/4-28 UNF	AJB428-300-2	.375	.354	.300	.349	.363	.750
1/4-28 UNF	AJB428-500-2	.375	.332	.500	.321	.363	.750
5/16-18 UNC	AJB518-335-2	.469	.439	.335	.431	.448	.938
5/16-18 UNC	AJB518-562-2	.469	.406	.562	.401	.448	.938
5/16-24 UNF	AJB524-335-2	.469	.439	.335	.431	.448	.938
5/16-24 UNF	AJB524-562-2	.469	.406	.562	.401	.448	.938
3/8-16 UNC	AJB616-375-2	.563	.532	.375	.523	.540	1.126
3/8-16 UNC	AJB616-625-2	.563	.493	.625	.488	.540	1.126
3/8-24 UNF	AJB624-375-2	.563	.532	.375	.523	.540	1.126
3/8-24 UNF	AJB624-625-2	.563	.493	.625	.488	.540	1.126



Metric Thread Size	Part Number	HOLE SIZE RECOMMENDATIONS					
		Diameters			Length		
		H.D. + .005	D + .004	L + .004	A + .001	B + .001	Minimum Boss Diameter
M2 x 0.4 ISO	AJB240-2.9-2	3.58	3.12	2.9	3.00	3.27	7.16
M2 x 0.4 ISO	AJB240-4.8-2	3.58	2.84	4.8	2.72	3.12	7.16
M2.2 x 0.45 ISO	AJB2245-2.9-2	3.58	3.12	2.9	3.00	3.27	7.16
M2.2 x 0.45 ISO	AJB2245-4.8-2	3.58	2.84	4.8	2.72	3.12	7.16
M2.5 x 0.45 ISO	AJB2545-3.4-2	4.37	3.99	3.4	3.89	4.14	8.74
M2.5 x 0.45 ISO	AJB2545-5.6-2	4.37	3.71	5.6	3.58	4.04	8.74
M3 x 0.5 ISO	AJB350-3.8-2	5.56	5.16	3.8	5.05	5.31	11.13
M3 x 0.5 ISO	AJB350-6.4-2	5.56	4.83	6.4	4.70	5.23	11.13
M3.5 x 0.6 ISO	AJB3506-3.8-2	5.56	5.16	3.8	5.05	5.31	11.13
M3.5 x 0.6 ISO	AJB3506-6.4-2	5.56	4.83	6.4	4.70	5.23	11.13
M4 x 0.7 ISO	AJB470-4.7-2	6.35	5.84	4.7	5.74	5.99	12.70
M4 x 0.7 ISO	AJB470-7.9-2	6.35	5.41	7.9	5.28	5.94	12.70
M5 x 0.8 ISO	AJB580-6.7-2	8.33	7.82	6.7	7.70	8.00	16.66
M5 x 0.8 ISO	AJB580-11.1-2	8.33	7.19	11.1	7.06	8.00	16.66
M6 x 1.0 ISO	AJB610-7.6-2	9.53	8.99	7.6	8.86	9.22	19.06
M6 x 1.0 ISO	AJB610-12.7-2	9.53	8.43	12.7	8.15	9.22	19.06
M8 x 1.25 ISO	AJB8125-8.5-2	11.91	11.15	8.5	10.95	11.38	23.83
M8 x 1.25 ISO	AJB8125-14.3-2	11.91	10.31	14.3	10.19	11.38	23.83
M10 x 1.5 ISO	AJB1015-9.5-2	14.30	13.51	9.5	13.28	13.71	28.60
M10 x 1.5 ISO	AJB1015-15.9-2	14.30	12.52	15.9	12.40	13.71	28.60



PART NUMBERING SYSTEM



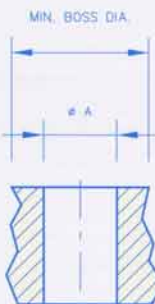
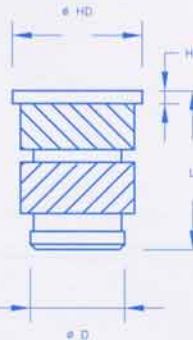
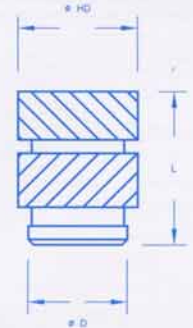


- ◆ Designed for straight hole applications
- ◆ Self aligning
- ◆ Installation by heat or ultrasonic equipment
- ◆ Flanged version provides load bearing surface as well as a contact area for electrical connections
- ◆ For installation into ABS, Nylon, Polycarbonates and Structural Foam

THREADED INSERT FOR PLASTICS

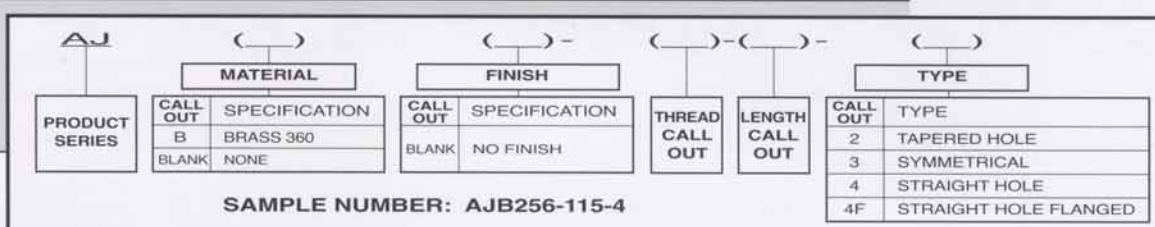
Inch Thread Size	Standard Diameters		Standard Length	Flange Diameters		Flange Length	Flange Thickness	HOLE SIZE	Minimum Boss Diameter
	H.D. + .004	D + .003	L + .004	H.D. + .005	D + .003	L + .004	C + .003	A + .003 - .000	
2-56 UNC	.143	.123	.115	.188	.123	.133	.018	.127	.286
2-56 UNC	.143	.123	.157	.188	.123	.175	.018	.127	.286
4-40 UNC	.186	.154	.135	.219	.154	.156	.021	.158	.372
4-40 UNC	.186	.154	.226	.219	.154	.247	.021	.158	.372
6-32 UNC	.217	.185	.150	.250	.185	.177	.027	.189	.434
6-32 UNC	.217	.185	.281	.250	.185	.308	.027	.189	.434
8-32 UNC	.249	.218	.185	.281	.218	.218	.033	.222	.498
8-32 UNC	.249	.218	.321	.281	.218	.354	.033	.222	.498
10-24 UNC	.279	.249	.225	.313	.249	.265	.040	.253	.558
10-24 UNC	.279	.249	.375	.313	.249	.415	.040	.253	.558
10-32 UNF	.279	.249	.225	.313	.249	.265	.040	.253	.558
10-32 UNF	.279	.249	.375	.313	.249	.415	.040	.253	.558
1/4-20 UNC	.340	.312	.300	.375	.312	.350	.050	.316	.680
1/4-20 UNC	.340	.312	.500	.375	.312	.550	.050	.316	.680
1/4-28 UNF	.340	.312	.300	.375	.312	.350	.050	.316	.680
1/4-28 UNF	.340	.312	.500	.375	.312	.550	.050	.316	.680
5/16-18 UNC	.406	.374	.335	.438	.374	.385	.050	.378	.812
5/16-18 UNC	.406	.374	.500	.438	.374	.550	.050	.378	.812
5/16-24 UNF	.406	.374	.335	.438	.374	.385	.050	.378	.812
5/16-24 UNF	.406	.374	.500	.438	.374	.550	.050	.378	.812
3/8-16 UNC	.498	.465	.375	.550	.465	.440	.065	.469	.956
3/8-16 UNC	.498	.465	.500	.550	.465	.565	.065	.469	.956
3/8-24 UNF	.498	.465	.375	.550	.465	.440	.065	.469	.956
3/8-24 UNF	.498	.465	.500	.550	.465	.565	.065	.469	.956

Metric Thread Size	Standard Diameters		Standard Length	Flange Diameters		Flange Length	Flange Thickness	HOLE SIZE	Minimum Boss Diameter
	H.D. + 0.10	D + 0.08	L + 0.10	H.D. + 0.13	D + 0.08	L + 0.10	C + 0.08	A + 0.08 - .000	
M2 x 0.4 ISO	3.64	3.12	2.92	4.78	3.12	3.38	0.46	3.23	7.26
M2 x 0.4 ISO	3.64	3.12	3.99	4.78	3.12	4.45	0.46	3.23	7.26
M2.2 x 0.45 ISO	3.64	3.12	2.92	4.78	3.12	3.38	0.46	3.23	7.26
M2.2 x 0.45 ISO	3.64	3.12	3.99	4.78	3.12	4.45	0.46	3.23	7.26
M2.5 x 0.45 ISO	4.72	3.91	3.43	5.56	3.91	3.96	0.53	4.02	9.45
M2.5 x 0.45 ISO	4.72	3.91	5.74	5.56	3.91	6.27	0.53	4.02	9.45
M3 x 0.5 ISO	4.72	3.91	3.43	5.56	3.91	3.96	0.53	4.02	9.45
M3 x 0.5 ISO	4.72	3.91	5.74	5.56	3.91	6.27	0.53	4.02	9.45
M3.5 x 0.6 ISO	5.51	4.70	3.81	6.35	4.70	4.50	0.69	4.81	11.18
M3.5 x 0.6 ISO	5.51	4.70	7.14	6.35	4.70	7.82	0.69	4.81	11.18
M4 x 0.7 ISO	6.32	5.54	4.70	7.14	5.54	5.54	0.84	5.65	12.45
M4 x 0.7 ISO	6.32	5.54	8.15	7.14	5.54	8.99	0.84	5.65	12.45
M5 x 0.8 ISO	7.09	6.32	5.72	7.95	6.32	6.73	1.02	6.43	14.17
M5 x 0.8 ISO	7.09	6.32	9.53	7.95	6.32	10.54	1.02	6.43	14.17
M6 x 1.0 ISO	8.64	7.92	7.62	9.53	7.92	8.89	1.27	8.03	17.37
M6 x 1.0 ISO	8.64	7.92	12.70	9.53	7.92	13.97	1.27	8.03	17.37
M8 x 1.25 ISO	10.31	9.50	8.51	11.13	9.50	9.78	1.27	9.61	20.62
M8 x 1.25 ISO	10.31	9.50	12.70	11.13	9.50	13.97	1.27	9.61	20.62
M10 x 1.5 ISO	12.65	11.81	9.53	13.96	11.81	11.18	1.65	11.92	24.28
M10 x 1.5 ISO	12.65	11.81	12.70	13.96	11.81	14.35	1.65	11.92	24.28



MIN. DEPTH =
INSERT LENGTH
PLUS .030 INCH
(0.77 mm)

PART NUMBERING SYSTEM



A-J SERIES TYPE 3

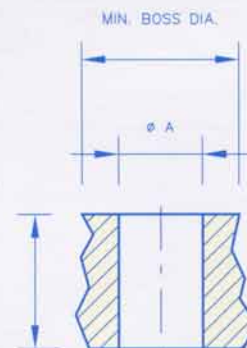


A-J TYPE 3 FEATURES:

- ◆ Symmetrical design assists automated assembly
- ◆ Installation by heat or ultrasonic equipment
- ◆ For installation into ABS, Nylon, Polycarbonates and Structural Foam

THREADED INSERT FOR PLASTICS

Inch Thread Size	Part Number	HOLE SIZE RECOMMENDATIONS				
		Diameters		Length	HOLE SIZE	
		D. + .004	H.D. + .004	L + .004	A Diam. = .003 - .000	Minimum Boss Diameter
2-56 UNC	AJB256-157-3	.135	.123	.157	.128	.286
4-40 UNC	AJB440-226-3	.179	.154	.226	.159	.372
6-32 UNC	AJB632-281-3	.220	.185	.281	.190	.440
8-32 UNC	AJB832-321-3	.250	.218	.321	.223	.498
10-24 UNC	AJB1024-375-3	.281	.249	.375	.254	.558
10-32 UNF	AJB1032-375-3	.281	.249	.375	.254	.558
1/4-20 UNC	AJB420-500-3	.342	.312	.500	.317	.684
1/4-28 UNF	AJB428-500-3	.342	.312	.500	.317	.684

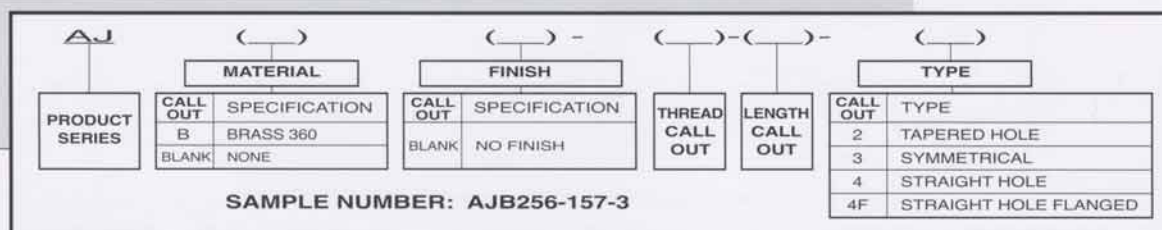


MIN. DEPTH =
INSERT LENGTH
PLUS .030 INCH
(0.77 mm)



Metric Thread Size	Part Number	HOLE SIZE RECOMMENDATIONS				
		Diameters		Length	HOLE SIZE	
		D. + .004	H.D. + .004	L + .004	A Diam. = .003 - .000	Minimum Boss Diameter
M2 x 0.4 ISO	AJB240-3.99-3	3.43	3.12	3.99	3.25	7.26
M2.2 x 0.45 ISO	AJB2245-3.99-3	3.43	3.12	3.99	3.25	7.26
M2.5 x 0.45 ISO	AJB2545-5.74-3	4.54	3.91	5.74	4.04	9.44
M3 x 0.5 ISO	AJB350-5.74-3	4.54	3.91	5.74	4.04	9.44
M3.5 x 0.6 ISO	AJB3506-7.13-3	5.59	4.70	7.13	4.83	11.18
M4 x 0.7 ISO	AJB470-8.15-3	6.35	5.54	8.15	5.67	12.64
M5 x 0.8 ISO	AJB580-9.52-3	7.13	6.32	9.52	6.45	14.18
M6 x 1.0 ISO	AJB610-12.70-3	8.69	7.92	12.70	8.05	17.38

PART NUMBERING SYSTEM



SAMPLE NUMBER: AJB256-157-3

ADDITIONAL PRODUCTS FROM AVK

A-L SERIES™ SEALED HEAD



- ◆ Under head PVC seal
- ◆ Seal out weather
- ◆ Seal out dust

A-L SERIES™ WEDGE HEAD



- ◆ Wedges under head
- ◆ Increased spin out resistance
- ◆ Ideal for SMC plastics

A-H SERIES™ SEALED HEAD



- ◆ Under head seal
- ◆ Seal out weather
- ◆ Seal out dust
- ◆ Ultimate spin out resistance

A-J SERIES™

- ◆ Brass inserts for plastic



A-S SERIES™ SEALED HEAD STUD



- ◆ Under head PVC seal
- ◆ Seal out weather
- ◆ Seal out dust

A-S SERIES™ WEDGE HEAD STUD



- ◆ Wedges under head
- ◆ Increased spin out resistance
- ◆ Ideal for SMC plastics

A-R SERIES™



- ◆ Large backside footprint
- ◆ Installs with ARO tool
- ◆ Ideal for all types of plastics

R-N SERIES™ RIVET NUT



- ◆ Thick head and body
- ◆ Exceptional push out strength
- ◆ Ideal for leg-leveling attachments

A-T SERIES™



- ◆ Installs in any thickness material
- ◆ Underhead knurl
- ◆ Available in stainless steel

A-W SERIES™



- ◆ Installs in any thickness material
- ◆ Full diamond knurl

A-O SERIES™



- ◆ Low profile head
- ◆ Available in steel

ARO PNEUMATIC TOOL



ARO PNEUMATIC/HYDRAULIC TOOL



DYNA-SET™ / ALLIANCE MACHINE



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For more on AVK see
our Web Site at
www.avkfasteners.com



AVK AUTHORIZED STOCKING DISTRIBUTOR



AVK INDUSTRIAL PRODUCTS

AN SPS TECHNOLOGIES COMPANY

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AVK ENGINEERED PRODUCT
BROCHURE AJB-1