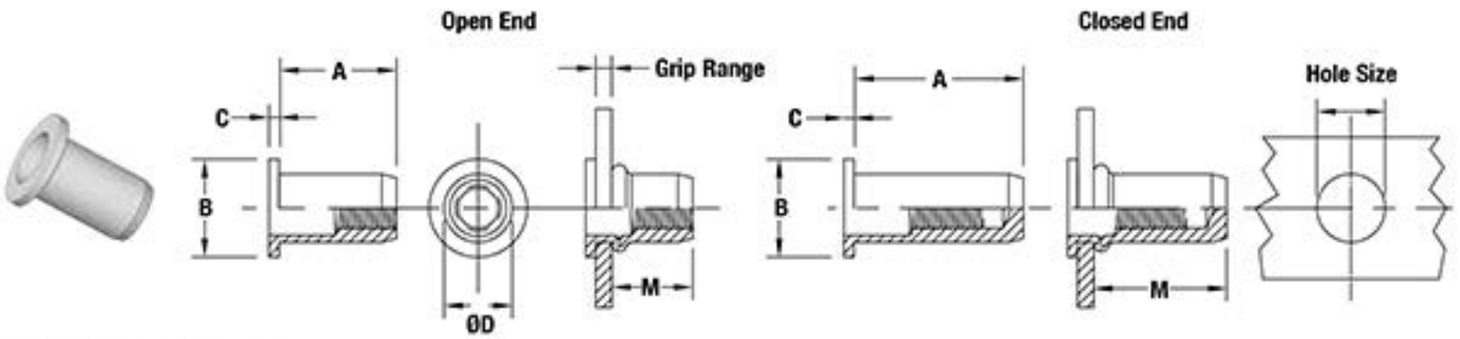
TYPE AEFR - FLAT HEAD ROUND BODY

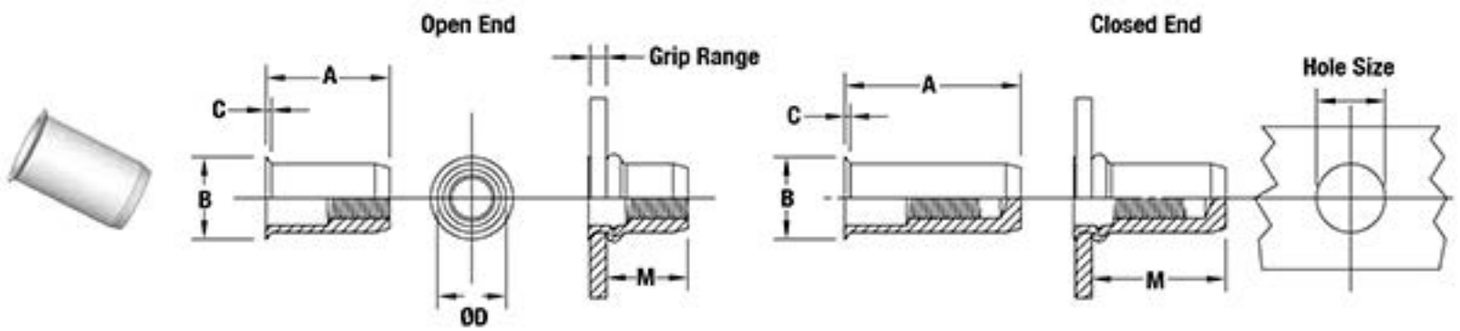
SEE PAGE 53 FOR PART NUMBER KEY



All dimensions are in millimeters.

Thread Size x Pitch	Type Steel	Grip Range	Open A ±0.25	Open B ±0.25	Open C ±0.13	Open ØD Max.	Open M Ref.	Closed A ±0.25	Closed B ±0.25	Closed C ±0.13	Closed ØD Max.	Closed M Ref.	Hole Size In Sheet +0.1
M3 X 0.5	AEFRS	0.5 – 2.0	9.75	8	0.75	5	6.00	14.1	8	0.75	5	10.35	5
M4 x 0.7	AEFRS	0.5 – 2.5	10.75	9	0.75	6	6.15	16.6	9	0.75	6	12.00	6
M5 x 0.8	AEFRS	0.5 – 3.0	12.00	10	1.0	7	6.55	18.0	10	1.0	7	12.55	7
		3.0 – 5.5	14.50					20.5					
M6 x 1	AEFRS	0.5 – 3.0	14.50	13	1.5	9	8.35	22.4	13	1.5	9	16.25	9
		3.0 – 5.5	17.00					24.9					
M8 x 1.25	AEFRS	0.5 – 3.0	16.00	16	1.5	11	9.15	24.8	16	1.5	11	17.95	11
		3.0 – 5.5	18.50					27.3					
M10 x 1.5	AEFRS	0.7 – 3.5	19.75	19	2.25	13	11.70	31.4	19	2.25	13	23.35	13

TYPE AETR - THIN HEAD ROUND BODY

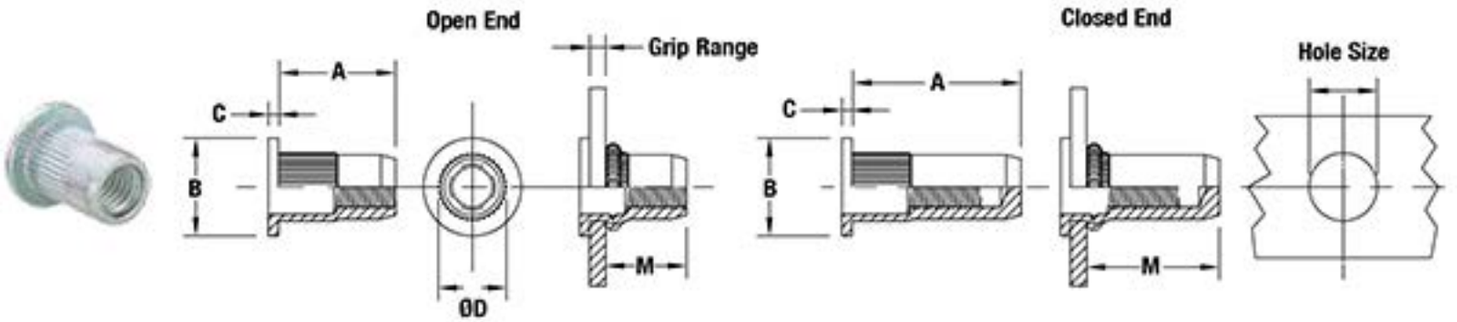


All dimensions are in millimeters.

Thread Size x Pitch	Type Steel	Grip Range	Open A ±0.25	Open B ±0.25	Open C ±0.13	Open ØD Max.	Open M Ref.	Closed A ±0.25	Closed B ±0.25	Closed C ±0.13	Closed ØD Max.	Closed M Ref.	Hole Size In Sheet +0.1
M3 X 0.5	AETRS	0.5 – 2.0	10.05	5.5	0.46	5	6.30	14.40	5.5	0.46	5	10.65	5
M4 x 0.7	AETRS	0.5 – 2.5	11.10	6.6	0.46	6	6.50	16.95	6.6	0.46	6	12.35	6
M5 x 0.8	AETRS	0.5 – 3.0	12.40	7.7	0.46	7	6.95	18.40	7.7	0.46	7	12.95	7
		3.0 – 5.5	14.90					20.90					
M6 x 1	AETRS	0.5 – 3.0	14.90	10	0.50	9	8.75	22.80	10	0.50	9	16.65	9
		3.0 – 5.5	17.40					25.30					
M8 x 1.25	AETRS	0.5 – 3.0	16.50	12	0.63	11	9.65	25.30	12	0.63	11	18.45	11
		3.0 – 5.5	19.00					27.80					
M10 x 1.5	AETRS	0.7 – 3.5	20.30	14.2	0.74	13	12.25	31.95	14.2	0.74	13	23.90	13

TYPE AEFK - FLAT HEAD KNURLED ROUND BODY

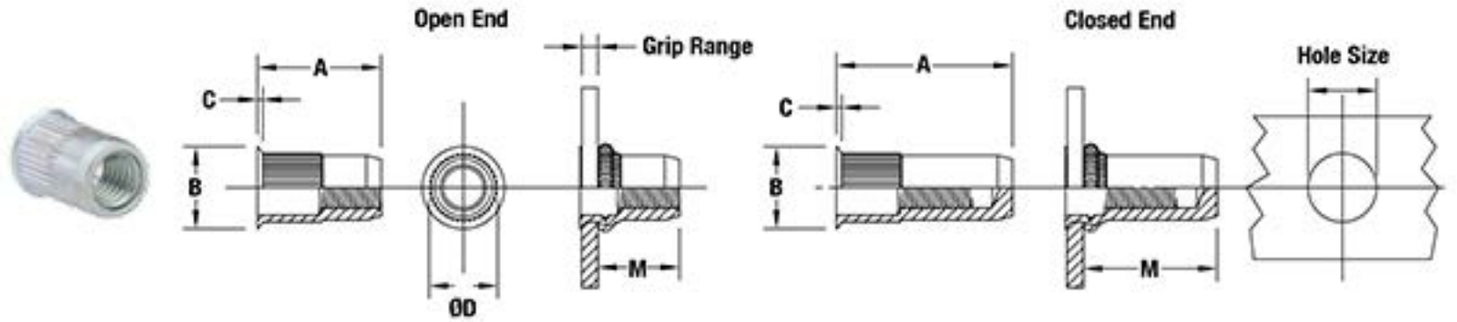
SEE PAGE 53 FOR PART NUMBER KEY



All dimensions are in millimeters.

Thread Size x Pitch	Type Steel	Grip Range	Open A ±0.25	Open B ±0.25	Open C ±0.13	Open ØD Max.	Open M Ref.	Closed A ±0.25	Closed B ±0.25	Closed C ±0.13	Closed ØD Max.	Closed M Ref.	Hole Size In Sheet +0.1
M3 X 0.5	AEFKS	0.5 – 2.0	9.75	8	0.75	5	6.00	14.1	8	0.75	5	10.35	5
M4 x 0.7	AEFKS	0.5 – 2.5	10.75	9	0.75	6	6.15	16.6	9	0.75	6	12.00	6
M5 x 0.8	AEFKS	0.5 – 3.0	12.00	10	1.0	6.98	7.55	18.0	10	1.0	6.98	13.55	7
		3.0 – 5.5	14.50				6.55	20.5				12.35	
M6 x 1	AEFKS	0.5 – 3.0	14.50	13	1.5	8.98	8.35	22.4	13	1.5	8.98	17.75	9
		3.0 – 5.5	17.00				8.55	24.9				16.95	
M8 x 1.25	AEFKS	0.5 – 3.0	16.00	16	1.5	10.98	11.15	24.8	16	1.5	11	17.95	11
		3.0 – 5.5	18.50				11.35	27.3					
M10 x 1.5	AEFKS	0.7 – 3.5	19.75	19	2.25	12.98	13.95	31.4	19	2.25	13	23.35	13

TYPE AETK - THIN HEAD KNURLED ROUND BODY

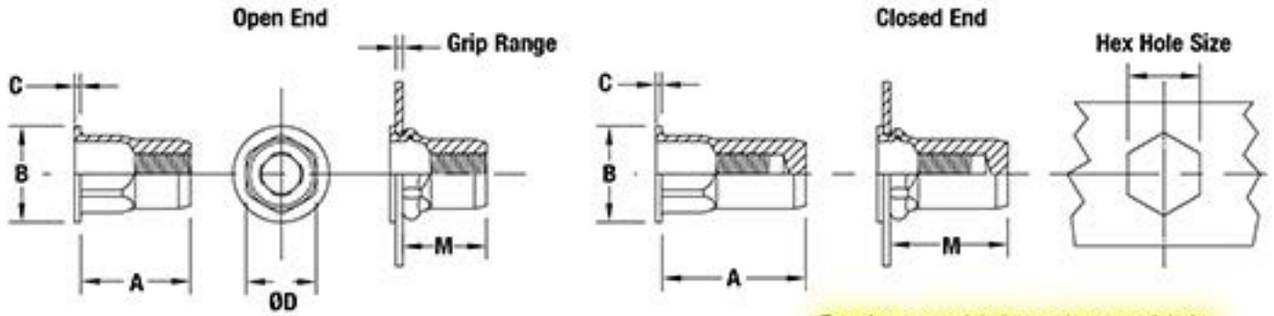


All dimensions are in millimeters.

Thread Size x Pitch	Type Steel	Grip Range	Open A ±0.25	Open B ±0.25	Open C ±0.13	Open ØD Max.	Open M Ref.	Closed A ±0.25	Closed B ±0.25	Closed C ±0.13	Closed ØD Max.	Closed M Ref.	Hole Size In Sheet +0.1
M3 X 0.5	AETKS	0.5 – 2.0	10.05	5.5	0.46	4.98	6.30	14.40	5.5	0.46	5	10.65	5
M4 x 0.7	AETKS	0.5 – 2.5	11.10	6.6	0.46	5.98	6.40	16.95	6.6	0.46	6	12.35	6
M5 x 0.8	AETKS	0.5 – 3.0	12.40	7.7	0.46	6.98	7.55	18.40	7.7	0.46	6.98	12.95	7
		3.0 – 5.5	14.90				6.95	20.90					
M6 x 1	AETKS	0.5 – 3.0	14.90	10	0.50	8.98	7.85	22.80	10	0.50	8.98	16.65	9
		3.0 – 5.5	17.40				8.75	25.30					
M8 x 1.25	AETKS	0.5 – 3.0	16.50	12	0.63	10.98	10.65	25.30	12	0.63	11	18.45	11
		3.0 – 5.5	19.00				9.65	27.80					
M10 x 1.5	AETKS	0.7 – 3.5	20.30	14.2	0.74	12.98	12.95	31.95	14.2	0.74	13	23.90	13

TYPE AEFH - FLAT HEAD SEMIHEX BODY HEX COUNTERBORE

SEE PAGE 53 FOR PART NUMBER KEY

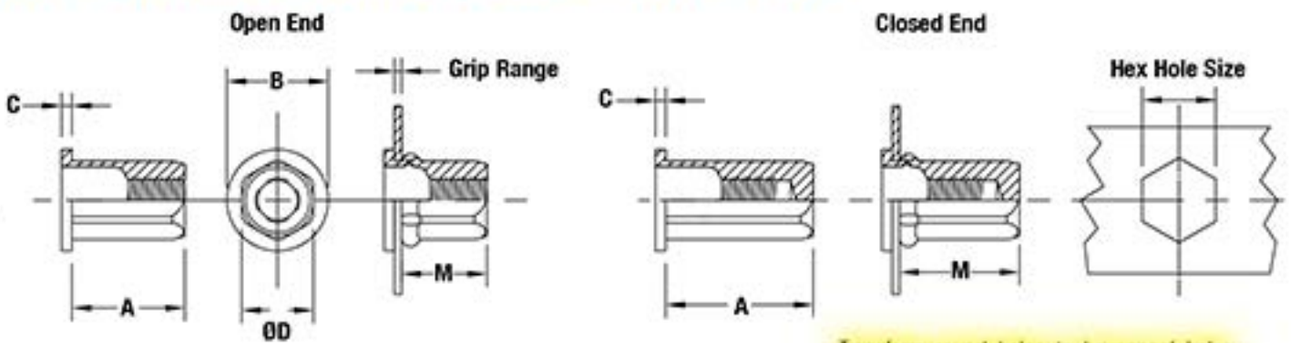


All dimensions are in millimeters.

*Transform round holes to hexagonal holes. See **RIV990 and RIV991** tools on page 46.*

Thread Size x Pitch	Type Steel	Grip Range	Open A ±0.25	Open B ±0.25	Open C ±0.13	Open ØD Max.	Open M Ref.	Closed A ±0.25	Closed B ±0.25	Closed C ±0.13	Closed ØD Max.	Closed M Ref.	Hex Hole Size +0.1
M3 X 0.5	AEFHS	0.5 – 2.0	9.75	8	0.75	5	6.00	14.1	8	0.75	5	10.35	5
M4 x 0.7	AEFHS	0.5 – 2.5	10.75	9	0.75	6	6.20	16.6	9	0.75	6	11.50	6
M5 x 0.8	AEFHS	0.5 – 3.0	12.00	10	1.0	6.98	7.55	18.0	10	1.0	6.98	13.55	7
		3.0 – 5.5	14.50				6.55	20.5				12.55	
M6 x 1	AEFHS	0.5 – 3.0	14.50	13	1.5	8.98	7.85	22.4	13	1.5	8.98	17.75	9
		3.0 – 5.5	17.00				8.75	24.9				16.95	
M8 x 1.25	AEFHS	0.5 – 3.0	16.00	16	1.5	10.98	11.15	24.8	16	1.5	11	17.95	11
		3.0 – 5.5	18.50				11.35	27.3					
M10 x 1.5	AEFHS	0.7 – 3.5	19.75	19	2.25	13	11.70	31.4	19	2.25	13	23.35	13

TYPE AEFHH - FLAT HEAD HEX BODY ROUND COUNTERBORE



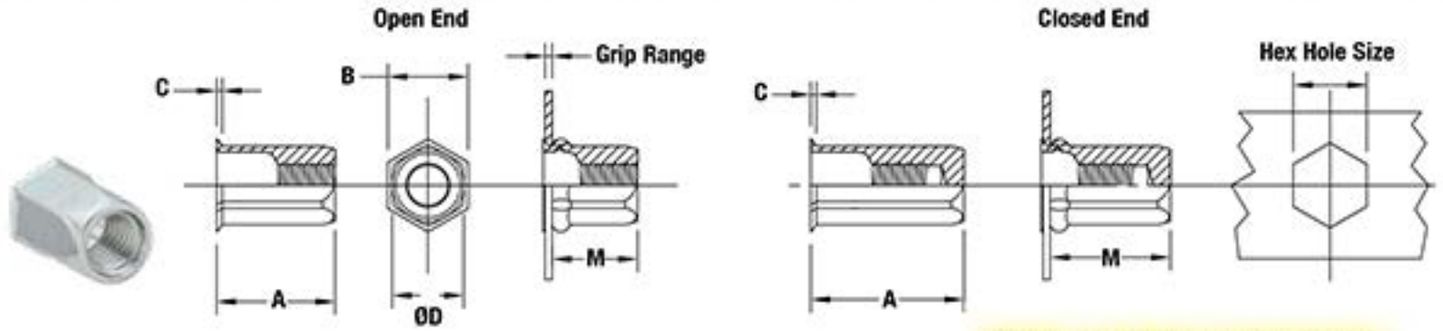
All dimensions are in millimeters.

*Transform round holes to hexagonal holes. See **RIV990 and RIV991** tools on page 46.*

Thread Size x Pitch	Type Steel	Grip Range	Open A ±0.25	Open B ±0.25	Open C ±0.13	Open ØD Max.	Open M Ref.	Closed A ±0.25	Closed B ±0.25	Closed C ±0.13	Closed ØD Max.	Closed M Ref.	Hex Hole Size +0.1
M3 X 0.5	AEFHHS	0.5 – 2.0	9.75	8	0.75	5	6.00	14.1	8	0.75	5	10.35	5
M4 x 0.7	AEFHHS	0.5 – 2.5	10.75	9	0.75	6	6.15	16.6	9	0.75	6	12.00	6
M5 x 0.8	AEFHHS	0.5 – 3.0	12.00	10	1.0	7	6.55	18.0	10	1.0	7	12.55	7
		3.0 – 5.5	14.50					20.5					
M6 x 1	AEFHHS	0.5 – 3.0	14.50	13	1.5	9	8.35	22.4	13	1.5	9	16.25	9
		3.0 – 5.5	17.00					24.9					
M8 x 1.25	AEFHHS	0.5 – 3.0	16.00	16	1.5	11	9.15	24.8	16	1.5	11	17.95	11
		3.0 – 5.5	18.50					27.3					
M10 x 1.5	AEFHHS	0.7 – 3.5	19.75	19	2.25	13	11.70	31.4	19	2.25	13	23.35	13

TYPE AETHH - THIN HEAD HEX BODY ROUND COUNTERBORE

SEE PAGE 53 FOR PART NUMBER KEY

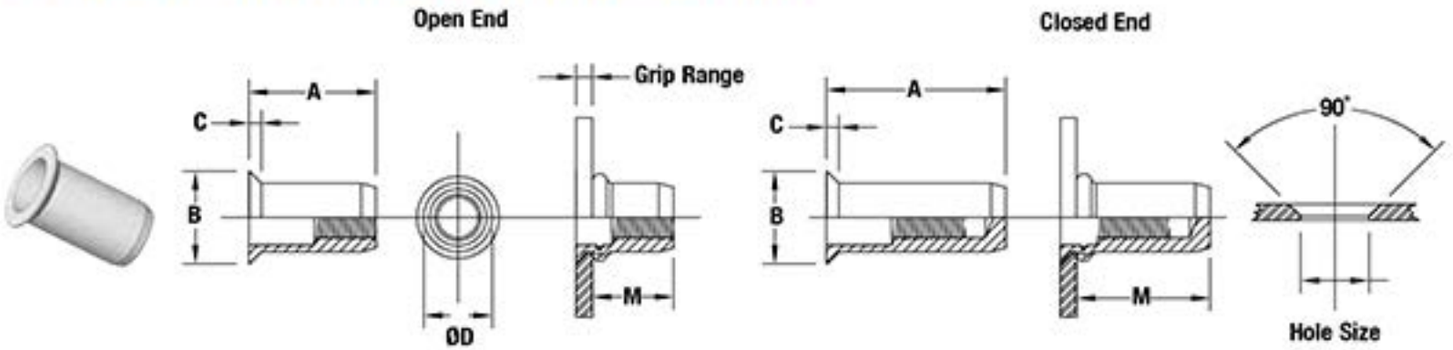


*Transform round holes to hexagonal holes. See **RIV990 and RIV991** tools on page 46.*

All dimensions are in millimeters.

Thread Size x Pitch	Type Steel	Grip Range	Open A ±0.25	Open B ±0.25	Open C ±0.13	Open ØD Max.	Open M Ref.	Closed A ±0.25	Closed B ±0.25	Closed C ±0.13	Closed ØD Max.	Closed M Ref.	Hex Hole Size +0.1
M3 X 0.5	AETHHS	0.5 – 2.0	10.05	5.5	0.46	5	6.30	14.40	5.5	0.46	5	10.65	5
M4 x 0.7	AETHHS	0.5 – 2.5	11.10	6.6	0.46	6	6.50	16.95	6.6	0.46	6	12.35	6
M5 x 0.8	AETHHS	0.5 – 3.0	12.45	7.7	0.60	6.98	8.05	18.45	7.7	0.46	7	13.00	7
		3.0 – 5.5	14.95				7.00	20.95					
M6 x 1	AETHHS	0.5 – 3.0	15.05	10	0.75	8.98	9.35	22.95	10	0.50	9	16.80	9
		3.0 – 5.5	17.55				8.90	25.45					
M8 x 1.25	AETHHS	0.7 – 3.0	16.60	12	0.80	10.98	10.65	25.40	12	0.63	11	18.55	11
		3.0 – 5.5	19.10				9.75	27.90					
M10 x 1.5	AETHHS	0.7 – 3.5	20.40	14.2	0.90	13	12.35	32.05	14.2	0.90	13	24.00	13

TYPE AECR - COUNTERSUNK HEAD ROUND BODY

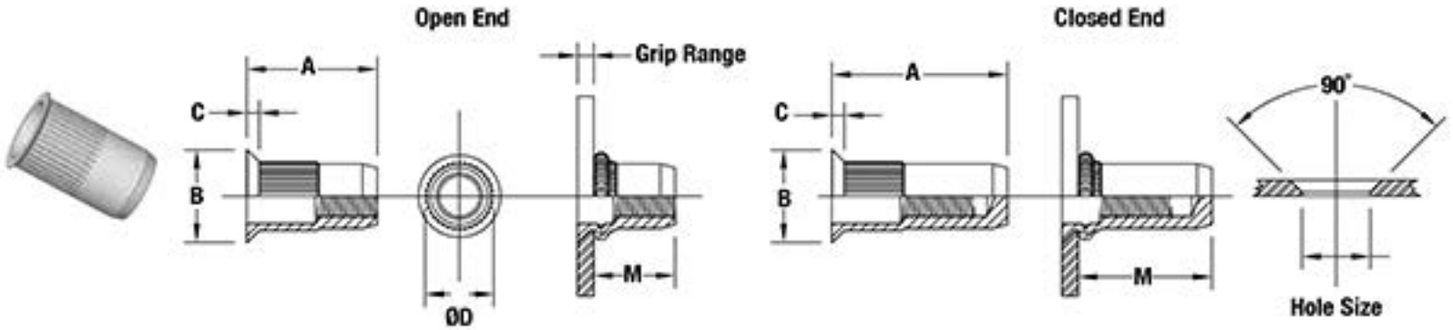


All dimensions are in millimeters.

Thread Size x Pitch	Type Steel	Grip Range	Open A ±0.25	Open B ±0.25	Open C ±0.13	Open ØD Max.	Open M Ref.	Closed A ±0.25	Closed B ±0.25	Closed C ±0.13	Closed ØD Max.	Closed M Ref.	Hole Size In Sheet +0.1
M3 X 0.5	AECRS	1.7 – 3.5	11.25	7.2	1.4	5	6.00	15.6	7.2	1.4	5	10.35	5
M4 x 0.7	AECRS	1.7 – 3.5	11.5	8.2	1.4	6	5.90	17.6	8.2	1.4	6	12.00	6
M5 x 0.8	AECRS	1.7 – 4.0	13	9.4	1.5	7	6.55	19.0	9.4	1.5	7	12.55	7
		4.0 – 6.5	16				7.05	21.5					
M6 x 1	AECRS	1.7 – 4.5	17	11.5	1.6	9	9.35	23.9	11.5	1.6	9	16.25	9
		4.5 – 6.5	19					25.9					
M8 x 1.25	AECRS	1.7 – 4.5	19	13.5	1.6	11	10.65	26.3	13.5	1.6	11	17.95	11
		4.5 – 6.5	21					28.3					
M10 x 1.5	AECRS	1.7 – 4.5	21	15.5	1.6	13	11.95	32.4	15.5	1.6	13	23.35	13

TYPE AECK - COUNTERSUNK HEAD KNURLED ROUND BODY

SEE PAGE 53 FOR PART NUMBER KEY



All dimensions are in millimeters.

Thread Size x Pitch	Type	Grip Range	Open					Closed					Hole Size In Sheet +0.1
	Steel		A ±0.25	B ±0.25	C ±0.13	ØD Max.	M Ref.	A ±0.25	B ±0.25	C ±0.13	ØD Max.	M Ref.	
M3 X 0.5	AECKS	1.7 – 3.5	11.25	7.2	1.4	5	6.00	15.6	7.2	1.4	5	10.35	5
M4 x 0.7	AECKS	1.7 – 3.5	11.5	8.2	1.4	6	5.90	17.6	8.2	1.4	6	12.00	6
M5 x 0.8	AECKS	1.7 – 4.0	13	9.4	1.5	7	6.55	19.0	9.4	1.5	7	12.55	7
		4.0 – 6.5	16				7.05	21.5					
M6 x 1	AECKS	1.7 – 4.5	17	11.5	1.6	9	9.35	23.9	11.5	1.6	9	16.25	9
		4.5 – 6.5	19					25.9					
M8 x 1.25	AECKS	1.7 – 4.5	19	13.5	1.6	11	10.65	26.3	13.5	1.6	11	17.95	11
		4.5 – 6.5	21					28.3					
M10 x 1.5	AECKS	1.7 – 4.5	21	15.5	1.6	13	11.95	32.4	15.5	1.6	13	23.35	13

ATLAS® FM™ MATERIAL AND FINISH SPECIFICATIONS

Code	Material	Threads	Standard Finish
A	Aluminum	Metric, 6H per ASME B1.13M	None
S	Low Carbon Steel	Metric, 6H per ASME B1.13M	RoHS compliant zinc clear per ASTM B 633, Fe/Zn8, Type V
C	Stainless Steel	Metric, 6H per ASME B1.13M	Passivated
B	Brass	Metric, 6H per ASME B1.13M	None