

GENERAL CONVERSION CHARTS

Drill Size	Inch	mm	Drill Size	Inch	mm	Drill Size	Inch	mm	Drill Size	Inch	mm	Drill Size	Inch	mm
80	.0135	.343	50	.0700	1.778	22	.1570	3.988	G	.2610	6.630	31/64	.4844	12.304
79	.0145	.368	49	.0730	1.854	21	.1590	4.039	17/64	.2556	6.746	1/2	.5000	12.700
1/64	.0156	.396	48	.0760	1.930	20	.1610	4.089	H	.2660	6.756	33/64	.5156	13.096
78	.0160	.406	5/64	.0781	1.984	19	.1660	4.216	I	.2720	6.909	17/32	.5312	13.492
77	.0180	.457	47	.0785	1.994	18	.1695	4.305	J	.2770	7.036	35/64	.5469	13.891
76	.0200	.508	46	.0810	2.057	11/64	.1719	4.366	K	.2810	7.137	9/16	.5625	14.288
75	.0210	.533	45	.0820	2.083	17	.1730	4.394	9/32	.2812	7.142	37/64	.5781	14.684
74	.0225	.572	44	.0860	2.184	16	.1770	4.496	L	.2900	7.366	19/32	.5938	15.083
73	.0240	.609	43	.0890	2.261	15	.1800	4.572	M	.2950	7.493	39/64	.6094	15.479
72	.0250	.635	42	.0935	2.375	14	.1820	4.623	19/64	.2969	7.541	5/8	.6250	15.875
71	.0260	.660	3/32	.0938	2.383	13	.1850	4.700	N	.3020	7.671	41/64	.6406	16.271
70	.0280	.711	41	.0960	2.438	3/16	.1875	4.763	5/16	.3125	7.938	21/32	.6562	16.667
69	.0292	.742	40	.0980	2.489	12	.1890	4.801	O	.3160	8.026	43/64	.6719	17.066
68	.0310	.787	39	.0995	2.527	11	.1910	4.851	P	.3230	8.204	11/16	.6875	17.463
1/32	.0312	.792	38	.1015	2.578	10	.1935	4.915	21/64	.3281	8.334	45/64	.7031	17.859
67	.0320	.813	38	.1040	2.642	9	.1960	4.978	Q	.3320	8.433	23/32	.7188	18.258
66	.0330	.838	36	.1065	2.705	8	.1990	5.055	R	.3390	8.611	47/64	.7344	18.654
65	.0350	.889	7/64	.1094	2.779	7	.2010	5.105	11/32	.3438	8.733	3/4	.7500	19.050
64	.0360	.914	35	.1100	2.794	13/64	.2031	5.159	S	.3480	8.839	419/64	.7656	19.446
63	.0370	.940	34	.1110	2.819	6	.2040	5.182	T	.3580	9.093	25/32	.7812	19.842
62	.0380	.965	33	.1130	2.870	5	.2055	5.220	23/64	.3594	9.129	51/64	.7969	20.241
61	.0390	.991	32	.1160	2.946	4	.2090	5.309	U	.3680	9.347	13/16	.8125	20.638
60	.0400	1.016	31	.1200	3.048	3	.2130	5.410	3/8	.3750	9.525	53/64	.8281	21.034
59	.0410	1.041	1/8	.1250	3.175	7/32	.2188	5.558	V	.3770	9.576	27/32	.8438	21.433
58	.0420	1.067	30	.1285	3.264	2	.2210	5.613	W	.3860	9.804	55/64	.8594	23.829
57	.0430	1.092	29	.1360	3.454	1	.2280	5.791	25/64	.3906	9.921	7/8	.8750	22.225
56	.0465	1.181	28	.1405	3.569	A	.2340	5.944	X	.3970	10.084	57/64	.8906	22.621
3/64	.0469	1.191	9/63	.1406	3.571	15/64	.2344	5.954	Y	.4040	10.262	29/32	.9062	23.017
55	.0520	1.321	27	.1440	3.658	B	.2380	6.045	13/32	.4062	10.317	59/64	.9219	23.416
54	.0550	1.397	26	.1470	3.734	C	.2420	6.147	Z	.4130	10.490	15/16	.9375	23.813
53	.0595	1.511	25	.1495	3.797	D	.2460	6.248	27/64	.4219	10.716	61/64	.9531	24.209
1/16	.0625	1.588	24	.1520	3.861	1/4	.2500	6.350	7/16	.4375	11.113	31/32	.9688	24.608
52	.0635	1.613	23	.1540	3.912	E	.2500	6.350	29/64	.4531	11.509	63/64	.9844	25.004
51	.0670	1.702	5/32	.1562	3.967	F	.2570	6.528	15/32	.4688	11.908	1	1.000	25.400

DECIMAL EQUIVALENTS OF STANDARD GAUGE SHEET ALUMINUM AND SHEET METAL

No. of Gauge	Gauge		No. of Gauge	Gauge		No. of Gauge	Gauge	
	Alum. (B & S)	Steel (US Std.)		Alum. (B & S)	Steel (US Std.)		Alum. (B & S)	Steel (US Std.)
10	.1019	.1345	17	.0453	.0538	24	.0201	.0239
11	.0907	.1196	18	.0403	.0478	25	.0179	.0209
12	.0808	.1046	19	.0359	.0418	26	.0159	.0179
13	.0720	.0897	20	.0320	.0359	27	.0142	.0164
14	.0641	.0747	21	.0285	.0329	28	.0126	.0149
15	.0571	.0673	22	.0253	.0299	29	.0113	.0135
16	.0508	.0598	23	.0226	.0269	30	.0100	.0120

GENERAL CONVERSION CHARTS

THREAD CODE COMPARISON CHART

	Common Industry Standard	Alternate Industry Standard	Atlas® SpinTite® Thread Code	Atlas® MaxTite®/ Plus+Tite® Thread Code
UNIFIED	#0-80	.060 - 80	—	—
	#1-64	.073 - 64	—	—
	#1-72	.073 - 72	—	—
	#2-56	.086 - 56	—	—
	#2-64	.086 - 64	—	—
	#3-48	.099 - 48	—	—
	#3-56	.099 - 56	—	—
	#4-40	.112 - 40	440	4
	#4-48	.112 - 48	448	448
	#5-40	.125 - 40	540	5
	#5-44	.125 - 44	544	544
	#6-32	.138 - 32	632	6
	#6-40	.138 - 40	640	640
	#8-32	.164 - 32	832	8
	#8-36	.164 - 36	836	836
	#10-24	.190 - 24	1024	1024
	#10-32	.190 - 32	1032	10
	#12-24	.216 - 24	1224	12
	#12-28	.216 - 28	1228	1228
	1/4-20	.2500 - 20	420	25
	1/4-28	.2500 - 28	428	2528
	5/16-18	.3125 - 18	518	31
	5/16-24	.3125 - 24	524	3124
	3/8-16	.3750 - 16	616	37
	3/8-24	.3750 - 24	624	3724
	7/16-14	.4375 - 14	714	43
	7/16-20	.4375 - 20	720	4320
	1/2-13	.5000 - 13	813	50
1/2-20	.5000 - 20	820	5020	
5/8-11	.6250 - 11	1011	—	
5/8-18	.6250 - 18	1018	—	
3/4-10	.7500 - 10	1210	—	
3/4-16	.7500 - 16	1216	—	
METRIC	M1.6 x 0.35	—	—	—
	M2 x 0.4	—	—	—
	M2.5 x 0.45	—	—	—
	M3 x 0.5	—	350	M3
	M3.5 x 0.6	—	3560	M3.5
	M4 x 0.7	—	470	M4
	M5 x 0.8	—	580	M5
	M6 x 1	—	610	M6
	M8 x 1.25	—	8125	M8
	M8 x 1	—	810	Special
	M10 x 1.5	—	1015	M10
	M10 x 1.25	—	10125	Special
	M10 x 1	—	1010	Special
	M12 x 1.75	—	12175	M12
	M14 x 2	—	1420	M14
	M16 x 2	—	1620	M16

SUGGESTED ASSEMBLY TORQUE VALUES TO PRODUCE CORRESPONDING BOLT LOADS

Thread Size	SAE Grade 5 Bolts		
	Clamp Load (lbs.)	Assembly Torque (in lbs.)	
		Dry	Plated
#4-40	380	8	6
#6-32	580	16	12
#8-32	900	30	22
#10-24	1120	43	32
#10-32	1285	49	36
1/4-20	2000	96	75
1/4-28	2300	120	86
5/16-18	3350	204	156
5/16-24	3700	228	168
3/8-16	4950	360	276
3/8-24	5600	420	300

METRIC CONVERSIONS

LINEAR

Multiply INCHES	by 25.4	to get MILLIMETERS (mm)
Multiply MILLIMETERS (mm)	by .03937	to get INCHES
Multiply INCHES	by 2.54	to get CENTIMETERS (cm)
Multiply CENTIMETERS (cm)	by .3937	to get INCHES

TORQUE

Multiply INCH-POUNDS	by 0.11298	to get NEWTON-METERS (Nm)
Multiply NEWTON-METERS (Nm)	by 8.851	to get INCH-POUNDS
Multiply FOOT-POUNDS	by 1.3558	to get NEWTON-METERS (Nm)
Multiply NEWTON-METERS (Nm)	by 0.7376	to get FOOT-POUNDS

FORCE

Multiply POUNDS	by .00445	to get KILONEWTONS (kN)
Multiply KILONEWTONS (kN)	by 224.72	to get POUNDS

PRESSURE

Multiply PSI	by .069	to get BARS
Multiply BARS	by 14.5	to get PSI

ATLAS® SpinTite® PART NUMBER KEY

AE L S 8 - 420 - 165 B W

W is for wedge head.

B here indicates closed end thread, **S** indicates sealant under the head, **BS** is closed end w/sealant under head, **blank** is open end. **Numbers preceded by a dash** in this position is the nominal stud length when installed in max grip. For parts with Unified threads, the number shown is the max grip in thousands of an inch. For parts with Metric threads, the number shown is the max grip in millimeters.

Grip Range Code:

For parts with Unified threads, the number shown is the max grip in thousands of an inch. For parts with Metric threads, the number shown is the max grip in millimeters.

Thread Code: See Thread Code Comparison Chart on page 36. Can also be used to determine if part is SpinTite® or MaxTite®/Plus+Tite®. Thread acceptability per gaging system 21.

Finish Code Number:

- None = No finish
- 2 = Cadmium and clear chromate (standard on type T, but not shown)
- 5 = RoHS compliant zinc and black chromate
- 6 = Tin plate
- 7 = Cadmium and yellow chromate
- 8 = RoHS compliant zinc and yellow chromate
(standard on all but AET and AEO). For AES leave blank.
- 9 = Tin/zinc plate
- 10 = RoHS compliant zinc and clear chromate (standard on AEO)

Material Code:

- S = Steel
- A = Aluminum
- B = Brass
- M = Monel® alloy 400 (AEL and AEK only)
- C = Stainless Steel (AETHC and AEK only)

Head and Shank Type Code

- K = Round ribbed shank, minimum-profile head
- L = Round ribbed shank, low-profile head
- H = Half hex shank, low-profile head
- O = Thin wall, smooth round shank, low-profile head
- T = 360° swaging, low-profile head
- S = Externally threaded stud installed into type AEL insert (1)
- TH = Full metric mounting hole
- W = Diamond knurl

All ATLAS® part numbers begin with AE for Atlas Engineering.

(1) Does not apply to Type AES blind threaded studs.

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