

TAB 2 - SPECIFICATIONS

Standard ANSI B 18.8.2
DOD - P - 63464
MS35671 through MS35679
MS51605
MS51606

Pin Type	Units	Material	Finish
G01 Full-Length Taper G2A Half-Length G3H Full-Length Parallel G05 Half-Length Center G24 Quarter-Length Parallel	E English M Metric	100 1215 Carbon Steel 101 1117 Steel 108 12L14 Steel 400 Monel 500 303 Stainless Steel 501 316 Stainless Steel 502 416 Stainless Steel 505 302 Stainless Steel 506 304 Stainless Steel 700 6150 Alloy	00 Plain 01 Phosphate 02 Cadmium, QQ-P-416F 04 Zinc, ASTM B-633 05 Nickel 06 Black Oxide 07 Zinc Chromate, ASTM B-633 08 Cadmium Chromate, QQ-P-416 09 Special

Standard English Pin Dimensions

Nominal Size or Basic Pin Diameter		D		P	C	F	R		A		H		J	K		Recommended Hole Size (Unplated Pin)	
		Pin Diameter		Pilot Length	Chamfer Length	Crown Height	Crown Radius		Neck Width		Shoulder Length		Neck Radius	Neck Diameter			
		Max	Min	Ref	Min	Ref	Max	Min	Max	Min	Max	Min	Ref	Max	Min		
1/32	0.0312	0.0312	0.0297	0.015												0.0324	0.0312
3/64	0.0469	0.0469	0.0454	0.031												0.0482	0.0469
1/16	0.0625	0.0625	0.0610	0.031	0.005	0.0065	0.088	0.068								0.0640	0.0625
5/64	0.0781	0.0781	0.0766	0.031	0.005	0.0087	0.104	0.084								0.0798	0.0781
3/32	0.0938	0.0938	0.0923	0.031	0.005	0.0091	0.135	0.115	0.038	0.028	0.041	0.031	0.016	0.067	0.057	0.0956	0.0938
7/64	0.1094	0.1094	0.1074	0.031	0.005	0.0110	0.150	0.130	0.038	0.028	0.041	0.031	0.016	0.082	0.072	0.1113	0.1094
1/8	0.1250	0.1250	0.1230	0.031	0.005	0.0130	0.166	0.146	0.069	0.059	0.041	0.031	0.031	0.088	0.078	0.1271	0.1250
5/32	0.1563	0.1563	0.1543	0.062	0.005	0.0170	0.198	0.178	0.069	0.059	0.057	0.047	0.031	0.109	0.099	0.1587	0.1563
3/16	0.1875	0.1875	0.1855	0.062	0.016	0.0190	0.260	0.240	0.069	0.059	0.057	0.047	0.031	0.130	0.120	0.1903	0.1875
7/32	0.2188	0.2188	0.2168	0.062	0.016	0.0220	0.291	0.271	0.101	0.091	0.072	0.062	0.047	0.151	0.141	0.2219	0.2188
1/4	0.2500	0.2500	0.2480	0.062	0.016	0.0260	0.322	0.302	0.101	0.091	0.072	0.062	0.047	0.172	0.162	0.2534	0.2500
5/16	0.3125	0.3125	0.3105	0.094	0.031	0.0340	0.385	0.365	0.132	0.122	0.104	0.094	0.062	0.214	0.204	0.3166	0.3125
3/8	0.3750	0.3750	0.3730	0.094	0.031	0.0390	0.479	0.459	0.132	0.122	0.135	0.125	0.062	0.255	0.245	0.3797	0.3750
7/16	0.4375	0.4375	0.4355	0.094	0.031	0.0470	0.541	0.521	0.195	0.185	0.135	0.125	0.094	0.298	0.288	0.4428	0.4375
1/2	0.5000	0.5000	0.4980	0.094	0.031	0.0520	0.615	0.615	0.195	0.185	0.135	0.125	0.094	0.317	0.307	0.5060	0.5000

**Pins in 1/32" and 3/64" diameter of any length and all sizes 1/4" nominal length or shorter are not crowned or chamfered.*

Alloy steel pins of all types have chamfered ends.

Tabulated dimensions and tolerances apply to the pins prior to applications of plating or other coating.

Extended Diameters

Groove Length	Nominal Diameter														
	1/32	3/64	1/16	5/64	3/32	7/64	1/8	5/32	3/16	7/32	1/4	5/16	3/8	7/16	1/2
.125	.035	.051	.068	.084	.101	.117	.134								
.185	.035	.051	.068	.084	.101	.117	.134	.166	.198						
.250	.035	.051	.068	.084	.101	.117	.134	.166	.198	.230	.263				
.312	.035	.051	.068	.084	.101	.117	.134	.166	.198	.230	.263	.329			
.375	.035	.051	.068	.084	.101	.117	.134	.166	.198	.230	.263	.329	.394		
.438	.035	.051	.068	.084	.101	.117	.134	.166	.198	.230	.263	.329	.394	.459	
.500	.035	.051	.068	.084	.101	.117	.134	.166	.198	.230	.263	.329	.394	.459	.525
.562			.068	.084	.101	.117	.134	.166	.198	.230	.263	.329	.394	.459	.525
.625			.068	.084	.101	.117	.134	.166	.198	.230	.263	.329	.394	.459	.525
.750			.067	.083	.100	.116	.134	.166	.198	.230	.263	.329	.394	.459	.525
.875			.067	.083	.100	.116	.133	.165	.198	.230	.263	.329	.394	.459	.525
1.000			.067	.083	.100	.115	.133	.165	.198	.230	.263	.329	.394	.459	.525
1.125					.100	.115	.132	.164	.197	.230	.263	.329	.394	.459	.525
1.250					.100	.115	.132	.164	.197	.230	.263	.329	.394	.459	.525
1.375							.132	.164	.197	.229	.262	.329	.394	.459	.525
1.500							.132	.164	.197	.229	.262	.329	.394	.459	.525
1.625								.163	.197	.229	.262	.328	.393	.459	.525
1.750								.163	.197	.229	.262	.328	.393	.459	.525
1.875								.163	.196	.229	.262	.328	.393	.458	.525
2.000								.163	.196	.229	.262	.328	.393	.458	.525
2.125									.196	.229	.262	.328	.393	.458	.524
2.250									.196	.229	.262	.328	.393	.458	.524
2.500										.228	.261	.327	.393	.458	.524
2.750										.228	.261	.327	.393	.458	.524
3.000										.227	.260	.327	.392	.457	.523
3.250											.260	.326	.392	.457	.523
3.500												.326	.391	.456	.522
3.750													.391	.456	.522
4.000													.390	.455	.521
4.250													.390	.455	.521
4.500														.454	.520
	EXPANDED DIAMETER TOLERANCE														
	±.0015	±.0015	±.0015	±.0015	±.0020	±.0020	±.0025	±.0025	±.0025	±.0025	±.0025	±.0030	±.0030	±.0030	±.0030
	EXPANDED DIAMETER REDUCTION FOR STAINLESS STEEL AND MONEL²														
	.001	.001	.002	.002	.002	.002	.002	.002	.002	.003	.003	.003	.004	.005	.006

1 For groove lengths not shown, use expanded diameters given for the next longer tabulated groove length.

2 Expanded diameters for stainless steel and Monel can be found by reducing the value in the table by the amount in the last row.

Weight Per 1,000 Pieces

Pin Length ¹		Nominal Diameter														
		1/32	3/64	1/16	5/64	3/32	7/64	1/8	5/32	3/16	7/32	1/4	5/16	3/8	7/16	1/2
1/8	.125	.03	.06	.11												
1/4	.25	.05	.12	.22	.35											
3/8	.375	.08	.18	.33	.52	.75	1.03	1.35	2.13	3.07						
1/2	.50	.11	.24	.44	.69	1.00	1.36	1.78	2.80	4.04	5.55	7.31				
5/8	.625		.31	.55	.86	1.24	1.69	2.21	3.45	5.02	6.88	9.03	14.30			
3/4	.750			.66	1.03	1.48	2.03	2.65	4.17	6.00	8.21	10.80	17.00	24.70		
7/8	.875			.75	1.20	1.73	2.36	3.08	4.84	6.98	9.55	12.50	19.70	28.60	39.20	58.50
1	1.0				1.37	1.97	2.69	3.52	5.52	7.96	10.80	14.20	22.50	32.50	44.60	72.40
1-1/4	1.25					2.46	3.36	4.39	6.89	9.91	13.50	17.70	27.80	40.30	55.20	86.30
1-1/2	1.50								8.24	11.80	16.20	21.70	33.30	48.10	65.80	100.20
1-3/4	1.75								9.60	13.80	18.80	24.60	38.70	55.90	76.50	114.00
2	2.0								10.90	15.80	21.50	28.10	44.10	63.70	87.10	128.00
2-1/4	2.25									17.70	24.10	31.60	49.60	71.60	97.70	141.90
2-1/2	2.50										26.80	35.00	55.00	79.60	108.40	155.80
2-3/4	2.75										29.50	38.50	60.40	87.20	119.00	169.60
3	3.0										32.20	42.00	65.80	95.00	129.60	183.50
3-1/4	3.25											45.50	71.30	102.80	140.30	197.40
3-1/2	3.50												76.70	110.60	150.90	211.30
3-3/4	3.75													118.40	161.60	225.20
4	4.0													126.30	172.20	239.00
4-1/4	4.25													134.00	182.80	253.00
1-1/2	4.50														193.50	

Highlighted areas indicate standard ANSI sizes and lengths of Groov-Pins.

1 Pin length for crown pins is (L+2F). Pin length for chamfered pins is (L).

2 Weights are estimates for steel pins. For stainless steel, multiply by 1.01 and for Monel, multiply by 1.12.