



GRADE 9 – YELLOW ZINC CHROMATE
8640 ALLOY F-911 — 180,000 P.S.I.

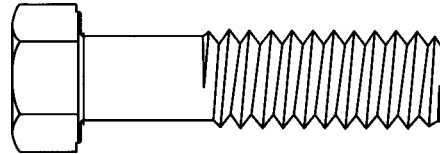


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Tough tasks require tough products. F-911[®] is the best because it's tough, tested and traceable. In the past, 8640 alloy was used in the manufacturing of only the most critical aerospace and other special high strength requirements. Now everyone can have the superior quality and strength with the "off the shelf" F-911[®] hex cap screws. What does 8640 Alloy offer? For starters, up to 56% more chromium content and the substantial addition of nickel, the ingredient that makes this alloy tough. With the higher Rockwell Hardness that the F-911[®] specification requires to achieve an over 190,000 P.S.I. Tensile Strength average, only 8640 Alloy can reach these lofty goals with superiority.

F-911[®] is no ordinary fastener. With a minimum 180,000 P.S.I., F-911[®] is stronger than the best Grade 8 – at least 20% stronger. F-911[®] bolts represent the ultimate in high strength.

We stock all F-911[®] products listed in the following section. Other F-911[®] products, such as plow bolts and carriage bolts are available by special order. Call for price and availability.



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USS FLAT WASHER			
Part No.	Size	Price Per	
		Each	100
9USS250	1/4	\$.12	\$ 9.80
9USS310	5/16	.15	12.77
9USS380	3/8	.24	20.41
9USS440	7/16	.38	31.36
9USS500	1/2	.59	49.41
9USS560	9/16	.75	62.70
9USS580	5/8	1.03	86.02
9USS750	3/4	1.86	155.23
9USS780	7/8	2.29	190.74
9USS900	1	2.76	229.74

SAE FLAT WASHER			
Part No.	Size	Price Per	
		Each	100
9SAE250	1/4	.15	12.12
9SAE310	5/16	.17	14.43
9SAE380	3/8	.19	15.46
9SAE440	7/16	.29	24.02
9SAE500	1/2	.38	32.05
9SAE560	9/16	.56	46.61
9SAE580	5/8	.76	63.32
9SAE750	3/4	1.14	95.38
9SAE780	7/8	1.32	109.62
9SAE900	1	2.38	198.30

HEX HEAD CAP SCREWS				
Part No.	Size	Price Per		
		Each	100	1000
9250C050	1/4-20 x 1/2	.18	15.85	158.50
9250C075	3/4	.19	16.79	167.90
9250C100	1	.20	18.08	180.80
9250C125	1-1/4	.22	19.83	198.30
9250C150	1-1/2	.24	21.70	217.00
9250C175	1-3/4	.27	23.93	239.30
9250C200	2	.29	26.27	262.70
9250C225	2-1/4	.37	33.64	336.40
9250C250	2-1/2	.38	33.87	338.70
9250C275	2-3/4	.52	46.57	465.70
9250C300	3	.52	46.74	467.40
9250C325	3-1/4	.80	71.90	719.00
9250C350	3-1/2	.80	72.07	720.70
9250C400	4	.92	83.13	831.30
9250C450	4-1/2	1.18	106.18	1061.80
9250C500	5	1.38	123.84	1238.40
9250C550	5-1/2	1.59	143.21	1432.10
9250C600	6	1.80	161.64	1616.40
9250C650	6-1/2	3.41	307.24	3072.40

HEX HEAD CAP SCREWS				
Part No.	Size	Price Per		
		Each	100	1000
9250C700	1/4-20 x 7	\$ 3.80	\$ 341.97	\$ 3419.70
9250C750	7-1/2	4.25	382.82	3828.20
9250C800	8	4.71	423.83	4238.30
9250F050	1/4-28 x 1/2	.19	17.08	170.80
9250F075	3/4	.21	18.54	185.40
9250F100	1	.22	19.83	198.30
9250F125	1-1/4	.24	21.76	217.60
9250F150	1-1/2	.26	23.81	238.10
9250F175	1-3/4	.30	26.62	266.20
9250F200	2	.32	28.67	286.70
9250F225	2-1/4	.39	34.81	348.10
9250F250	2-1/2	.39	34.92	349.20
9250F275	2-3/4	.55	49.61	496.10
9250F300	3	.55	49.73	497.30
9250F325	3-1/4	.87	78.51	785.10
9250F350	3-1/2	.87	78.60	786.00
9250F400	4	1.06	95.06	950.60
9250F450	4-1/2	1.24	111.50	1115.00
9250F500	5	1.45	130.46	1304.60
9250F550	5-1/2	1.66	149.47	1494.70
9250F600	6	1.87	168.25	1682.50
9250F650	6-1/2	3.66	329.76	3297.60
9250F700	7	4.08	367.15	3671.50
9250F750	7-1/2	4.57	411.02	4110.20
9250F800	8	5.06	455.13	4551.30
9310C050	5/16-18 x 1/2	.24	21.41	214.10
9310C075	3/4	.25	22.87	228.70
9310C100	1	.31	27.55	275.50
9310C125	1-1/4	.33	30.01	300.10
9310C150	1-1/2	.37	33.23	332.30
9310C175	1-3/4	.42	38.08	380.80
9310C200	2	.45	40.13	401.30
9310C225	2-1/4	.49	43.93	439.30
9310C250	2-1/2	.49	44.23	442.30
9310C275	2-3/4	.59	52.65	526.50
9310C300	3	.59	52.83	528.30
9310C325	3-1/4	.94	84.59	845.90
9310C350	3-1/2	.94	84.71	847.10
9310C400	4	1.15	103.90	1039.00
9310C450	4-1/2	1.59	143.27	1432.70
9310C500	5	1.75	157.31	1573.10
9310C550	5-1/2	1.89	170.53	1705.30
9310C600	6	2.05	184.28	1842.80



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HEX HEAD CAP SCREWS				
Part No.	Size	Price Per		
		Each	100	
9310C650	5/16-18 x 6-1/2	\$ 4.11	\$370.31	
9310C700	7	4.55	409.56	
9310C750	7-1/2	5.03	452.26	
9310C800	8	5.48	493.62	
9310F050	5/16-24 x 1/2	.27	24.34	
9310F075	3/4	.28	25.39	
9310F100	1	.31	27.85	
9310F125	1-1/4	.34	30.95	
9310F150	1-1/2	.38	33.99	
9310F175	1-3/4	.42	37.56	
9310F200	2	.45	40.77	
9310F225	2-1/4	.53	47.85	
9310F250	2-1/2	.54	48.50	
9310F275	2-3/4	.64	57.39	
9310F300	3	.64	57.68	
9310F325	3-1/4	1.07	96.47	
9310F350	3-1/2	1.07	96.70	
9310F400	4	1.32	118.70	
9310F450	4-1/2	1.67	150.23	
9310F500	5	1.87	168.42	
9310F550	5-1/2	2.05	184.68	
9310F600	6	2.22	199.43	
9310F650	6-1/2	4.53	407.34	
9310F700	7	4.88	439.28	
9310F750	7-1/2	5.39	485.08	
9310F800	8	5.88	529.43	
9380C050	3/8-16 x 1/2	.34	30.48	
9380C075	3/4	.36	32.35	
9380C100	1	.39	35.10	
9380C125	1-1/4	.43	38.79	
9380C150	1-1/2	.48	43.06	
9380C175	1-3/4	.53	47.27	
9380C200	2	.57	51.42	
9380C225	2-1/4	.62	55.52	
9380C250	2-1/2	.67	60.31	
9380C275	2-3/4	.79	70.73	
9380C300	3	.81	72.60	
9380C325	3-1/4	1.08	96.76	
9380C350	3-1/2	1.08	97.34	
9380C400	4	1.54	138.24	
9380C450	4-1/2	1.87	168.60	
9380C500	5	2.21	199.02	
9380C550	5-1/2	2.51	226.04	

HEX HEAD CAP SCREWS				
Part No.	Size	Price Per		
		Each	100	
9380C600	3/8-16 x 6	\$ 2.63	\$237.04	
9380C650	6-1/2	5.25	472.80	
9380C700	7	5.85	526.79	
9380C750	7-1/2	6.44	579.27	
9380C800	8	7.48	673.63	
9380F050	3/8-24 x 1/2	.39	34.81	
9380F075	3/4	.39	35.45	
9380F100	1	.43	38.43	
9380F125	1-1/4	.47	42.53	
9380F150	1-1/2	.52	47.15	
9380F175	1-3/4	.57	51.48	
9380F200	2	.63	56.34	
9380F225	2-1/4	.66	59.67	
9380F250	2-1/2	.73	65.29	
9380F275	2-3/4	.87	77.92	
9380F300	3	.87	78.33	
9380F325	3-1/4	1.18	106.18	
9380F350	3-1/2	1.18	106.59	
9380F400	4	1.69	151.81	
9380F450	4-1/2	2.08	187.08	
9380F500	5	2.49	224.17	
9380F550	5-1/2	2.78	250.50	
9380F600	6	2.92	262.72	
9380F650	6-1/2	5.62	506.08	
9380F700	7	6.27	564.70	
9380F750	7-1/2	6.90	620.86	
9380F800	8	7.54	678.37	
9440C075	7/16-14 x 3/4	.56	50.31	
9440C100	1	.57	51.48	
9440C125	1-1/4	.64	57.39	
9440C150	1-1/2	.70	63.41	
9440C175	1-3/4	.76	67.98	
9440C200	2	.83	74.82	
9440C225	2-1/4	.97	87.52	
9440C250	2-1/2	.98	87.98	
9440C275	2-3/4	1.14	102.20	
9440C300	3	1.15	103.37	
9440C325	3-1/4	1.42	127.47	
9440C350	3-1/2	1.43	128.52	
9440C400	4	1.91	172.11	
9440C450	4-1/2	2.38	214.29	
9440C500	5	2.70	243.36	
9440C550	5-1/2	3.23	290.86	



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HEX HEAD CAP SCREWS				
Part No.	Size	Price Per		
		Each	100	
9440C600	7/16-14 x 6	\$ 3.72	\$334.50	
9440C650	6-1/2	6.46	581.72	
9440C700	7	7.14	642.39	
9440C750	7-1/2	7.83	704.57	
9440C800	8	8.47	762.20	
9440F075	7/16-20 x 3/4	.61	55.34	
9440F100	1	.63	56.51	
9440F125	1-1/4	.69	61.95	
9440F150	1-1/2	.75	67.51	
9440F175	1-3/4	.82	73.59	
9440F200	2	.88	79.62	
9440F225	2-1/4	1.07	96.47	
9440F250	2-1/2	1.07	96.64	
9440F275	2-3/4	1.23	110.74	
9440F300	3	1.24	111.91	
9440F325	3-1/4	1.48	133.15	
9440F350	3-1/2	1.49	133.73	
9440F400	4	2.09	188.25	
9440F450	4-1/2	2.66	239.21	
9440F500	5	3.04	273.96	
9440F550	5-1/2	3.50	314.73	
9440F600	6	4.06	365.63	
9440F650	6-1/2	6.91	621.50	
9440F700	7	7.62	685.68	
9440F750	7-1/2	8.41	757.28	
9440F800	8	9.08	816.78	
9500C075	1/2-13 x 3/4	.73	65.64	
9500C100	1	.78	69.97	
9500C125	1-1/4	.85	76.87	
9500C150	1-1/2	.94	84.24	
9500C175	1-3/4	1.01	90.91	
9500C200	2	1.10	99.10	
9500C225	2-1/4	1.15	103.90	
9500C250	2-1/2	1.24	111.21	
9500C275	2-3/4	1.40	126.13	
9500C300	3	1.42	128.00	
9500C325	3-1/4	1.76	158.83	
9500C350	3-1/2	1.78	159.76	
9500C400	4	2.03	182.75	
9500C450	4-1/2	2.67	240.20	
9500C500	5	3.05	274.37	
9500C550	5-1/2	3.49	313.97	
9500C600	6	3.98	357.79	

HEX HEAD CAP SCREWS				
Part No.	Size	Price Per		
		Each	100	
9500C650	1/2-13 x 6-1/2	\$ 7.08	\$636.83	
9500C700	7	7.83	704.46	
9500C750	7-1/2	8.58	772.32	
9500C800	8	9.33	839.48	
9500F075	1/2-20 x 3/4	.82	74.00	
9500F100	1	.83	74.59	
9500F125	1-1/4	.92	82.43	
9500F150	1-1/2	1.00	89.68	
9500F175	1-3/4	1.08	96.93	
9500F200	2	1.17	105.42	
9500F225	2-1/4	1.22	109.51	
9500F250	2-1/2	1.32	118.40	
9500F275	2-3/4	1.51	135.84	
9500F300	3	1.52	137.01	
9500F325	3-1/4	1.91	172.11	
9500F350	3-1/2	1.93	173.51	
9500F400	4	2.21	198.72	
9500F450	4-1/2	2.89	260.38	
9500F500	5	3.35	301.10	
9500F550	5-1/2	3.96	356.62	
9500F600	6	4.52	406.52	
9500F650	6-1/2	7.56	680.53	
9500F700	7	8.36	752.66	
9500F750	7-1/2	9.17	825.44	
9500F800	8	9.97	897.04	
9560C100	9/16-12 x 1	1.26	113.14	
9560C125	1-1/4	1.37	123.73	
9560C150	1-1/2	1.39	124.66	
9560C175	1-3/4	1.54	138.82	
9560C200	2	1.59	143.15	
9560C225	2-1/4	1.81	162.86	
9560C250	2-1/2	1.82	164.09	
9560C275	2-3/4	2.04	183.87	
9560C300	3	2.06	185.15	
9560C325	3-1/4	2.33	209.90	
9560C350	3-1/2	2.35	211.54	
9560C400	4	2.64	237.69	
9560C450	4-1/2	3.13	281.39	
9560C500	5	3.38	304.55	
9560C550	5-1/2	4.68	421.20	
9560C600	6	4.97	447.70	
9560C650	6-1/2	8.37	753.01	
9560C700	7	9.26	833.45	



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HEX HEAD CAP SCREWS				
Part No.	Size		Price Per	
			Each	100
9560C750	9/16-12	7-1/2	\$10.18	\$ 915.82
9560C800		8	11.40	1,026.32
9560F100	9/16-18	x 1	1.42	127.65
9560F125		1-1/4	1.46	131.27
9560F150		1-1/2	1.47	132.50
9560F175		1-3/4	1.66	149.82
9560F200		2	1.69	152.39
9560F225		2-1/4	1.93	173.45
9560F250		2-1/2	1.94	174.62
9560F275		2-3/4	2.17	195.62
9560F300		3	2.19	196.68
9560F325		3-1/4	2.48	223.18
9560F350		3-1/2	2.50	224.70
9560F400		4	2.79	251.37
9560F450		4-1/2	3.54	318.42
9560F500		5	3.76	338.19
9560F550		5-1/2	4.98	448.11
9560F600		6	5.29	475.96
9560F650		6-1/2	8.92	802.68
9560F700		7	9.87	888.03
9560F750		7-1/2	10.84	975.49
9560F800		8	12.14	1,092.96
9580C100	5/8-11	x 1	1.41	126.59
9580C125		1-1/4	1.45	130.57
9580C150		1-1/2	1.54	138.53
9580C175		1-3/4	1.63	146.48
9580C200		2	1.75	157.42
9580C225		2-1/4	1.87	168.54
9580C250		2-1/2	2.01	181.29
9580C275		2-3/4	2.14	192.52
9580C300		3	2.26	203.35
9580C325		3-1/4	2.69	242.31
9580C350		3-1/2	2.71	244.00
9580C400		4	3.00	270.21
9580C450		4-1/2	3.30	297.18
9580C500		5	3.70	332.87
9580C550		5-1/2	4.22	379.78
9580C600		6	4.80	431.61
9580C650		6-1/2	9.81	882.82
9580C700		7	10.81	972.74
9580C750		7-1/2	11.99	1,078.97
9580C800		8	13.30	1,196.68

HEX HEAD CAP SCREWS				
Part No.	Size		Price Per	
			Each	100
9580F100	5/8-18	x 1	\$ 1.51	\$ 135.54
9580F125		1-1/4	1.56	139.99
9580F150		1-1/2	1.65	148.59
9580F175		1-3/4	1.76	158.54
9580F200		2	1.90	170.76
9580F225		2-1/4	2.04	183.22
9580F250		2-1/2	2.17	195.62
9580F275		2-3/4	2.31	207.79
9580F300		3	2.45	220.19
9580F325		3-1/4	2.90	261.20
9580F350		3-1/2	2.93	263.37
9580F400		4	3.26	293.26
9580F450		4-1/2	3.61	325.03
9580F500		5	4.13	371.94
9580F550		5-1/2	4.62	416.05
9580F600		6	5.26	473.09
9580F650		6-1/2	10.43	938.63
9580F700		7	11.53	1,037.91
9580F750		7-1/2	12.83	1,154.97
9580F800		8	14.19	1,277.41
9750C100	3/4-10	x 1	2.67	240.73
9750C125		1-1/4	2.70	242.72
9750C150		1-1/2	2.71	243.83
9750C175		1-3/4	2.80	252.25
9750C200		2	2.98	268.34
9750C225		2-1/4	3.19	286.88
9750C250		2-1/2	3.37	302.97
9750C275		2-3/4	3.54	318.71
9750C300		3	3.72	335.15
9750C350		3-1/2	4.17	375.75
9750C400		4	4.63	416.58
9750C450		4-1/2	5.24	471.57
9750C500		5	5.85	526.73
9750C550		5-1/2	6.60	593.89
9750C600		6	7.35	661.05
9750C700		7	15.66	1,409.27
9750C800		8	17.40	1,565.81
9750C900		9	26.35	2,371.30
9750F100	3/4-16	x 1	2.81	253.07
9750F125		1-1/4	2.82	253.60
9750F150		1-1/2	2.83	254.77
9750F175		1-3/4	2.98	268.34

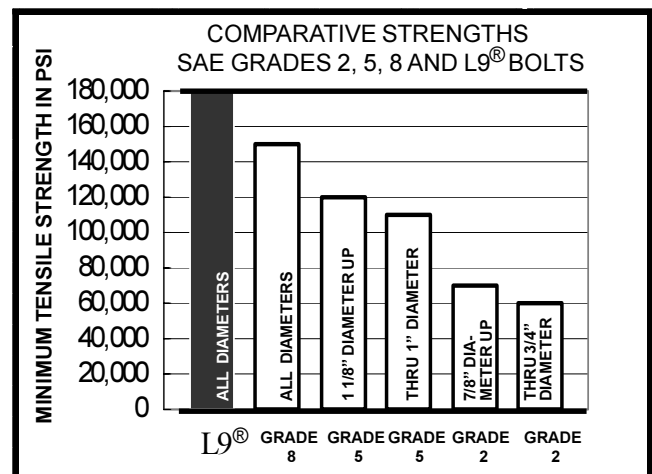


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HEX HEAD CAP SCREWS				
Part No.	Size	Price Per		
		Each	100	
9750F200	3/4-16 x 2	\$ 3.18	\$ 286.01	
9750F225	2-1/4	3.39	304.96	
9750F250	2-1/2	3.58	322.63	
9750F275	2-3/4	3.88	349.54	
9750F300	3	3.96	356.44	
9750F350	3-1/2	4.44	399.61	
9750F400	4	4.92	442.67	
9750F450	4-1/2	5.57	500.94	
9750F500	5	6.22	559.61	
9750F550	5-1/2	7.01	630.98	
9750F600	6	7.80	702.23	
9750F700	7	16.61	1,495.03	
9750F800	8	18.44	1,659.76	
9750F900	9	29.72	2,674.62	
9780C150	7/8-9 x 1-1/2	4.98	448.29	
9780C200	2	4.98	448.29	
9780C250	2-1/2	5.48	493.04	
9780C300	3	6.15	553.18	
9780C350	3-1/2	6.92	623.20	
9780C400	4	7.66	689.07	
9780C450	4-1/2	8.41	756.93	
9780C500	5	9.17	825.67	
9780C550	5-1/2	9.97	897.16	
9780C600	6	11.10	999.18	
9780C700	7	23.74	2,136.77	
9780C800	8	29.23	2,631.04	
9780C900	9	40.46	3,641.74	
9780F150	7/8-14 x 1-1/2	5.62	506.08	
9780F200	2	5.62	506.08	
9780F250	2-1/2	6.14	552.36	
9780F300	3	6.93	623.96	
9780F350	3-1/2	7.77	699.25	
9780F400	4	8.64	777.47	
9780F450	4-1/2	9.52	856.56	
9780F500	5	10.42	937.52	
9780F550	5-1/2	11.32	1,018.60	
9780F600	6	12.21	1,098.81	
9780F700	7	25.33	2,279.57	
9780F800	8	31.20	2,808.12	
9780F900	9	43.20	3,887.68	

HEX HEAD CAP SCREWS				
Part No.	Size	Price Per		
		Each	100	
9900C150	1-8 x 1-1/2	\$ 6.44	\$ 579.56	
9900C200	2	6.44	579.56	
9900C250	2-1/2	6.99	629.34	
9900C300	3	7.60	683.87	
9900C350	3-1/2	8.47	762.14	
9900C400	4	9.34	840.47	
9900C450	4-1/2	10.21	918.74	
9900C500	5	11.33	1,019.95	
9900C600	6	12.82	1,153.56	
9900C700	7	26.02	2,341.52	
9900C800	8	31.43	2,828.83	
9900C900	9	46.40	4,175.67	
9900F150	1-14 x 1-1/2	6.88	619.34	
9900F200	2	6.88	619.34	
9900F250	2-1/2	7.44	669.65	
9900F300	3	8.24	741.49	
9900F350	3-1/2	8.98	807.83	
9900F400	4	9.90	890.84	
9900F450	4-1/2	10.82	973.67	
9900F500	5	11.74	1,056.80	
9900F550	5-1/2	12.66	1,139.81	
9900F600	6	13.59	1,222.83	
9900F700	7	27.71	2,494.09	
9900F800	8	33.78	3,040.60	
9900F900	9	49.46	4,451.09	





**GRADE 9 – YELLOW ZINC CHROMATE
8640 ALLOY F-911 — 180,000 P.S.I.**



USER SPECIFICATIONS -- GRADE 9 FASTENING SYSTEM

The table below lists by size the Tensile Strength, Proof Loads and Clamp Loads appropriate for use with Grade 9 fasteners. Recommended torque values to achieve the recommended clamp loads are also shown, for applying torque to the bolt head or to the nut. Notes below show how the loads are calculated. Refer to “User Cautions” prior to installation of Grade 9 fasteners.

L9 [®] SYSTEM USER SPECIFICATIONS – Torque Values for bolt and nut assembly – NOT TAPPED HOLES												
REFERENCE NOTE	UNRC-2A COARSE THREAD						UNRF-2A FINE THREAD					
	A	B	C	D	E		A	B	C	D	E	
NOMINAL DIAMETER & THDS/IN.	THREADS PER INCH	TENSILE STRENGTH LBS.	PROOF LOAD LBS.	CLAMP LOAD LBS.	TORQUE BY HEAD LB.-FT.	TORQUE BY NUT LB.-FT.	THREADS PER INCH	TENSILE STRENGTH LBS.	PROOF LOAD LBS.	CLAMP LOAD LBS.	TORQUE BY HEAD LB.-FT.	TORQUE BY NUT LB.-FT.
1/4	20	5,720	4,610	3,450	10	11	28	6,550	5,270	3,950	12	13
5/16	18	9,430	7,590	5,700	19	21	24	10,440	8,410	6,300	20	23
3/8	16	13,950	11,230	8,450	30	33	24	15,800	12,730	9,550	35	38
7/16	14	19,130	15,410	11,550	55	60	20	21,360	17,210	12,900	60	65
1/2	13	25,540	20,570	15,450	85	95	20	28,780	23,180	17,400	95	105
9/16	12	32,760	26,390	19,800	120	140	18	36,540	29,430	22,100	135	150
5/8	11	40,680	32,770	24,550	170	185	18	46,080	37,120	27,800	190	205
3/4	10	60,120	48,430	36,350	265	290	16	67,140	54,080	40,600	330	355
7/8	9	83,160	66,990	50,300	475	505	14	91,620	73,800	55,400	520	585
1	8	109,080	87,870	65,900	550	775	14	122,220	98,450	73,800	700	900
1-1/8	7	137,340	110,630	83,000	1025	1150	12	154,080	124,120	93,100	1150	1325
1-1/4	7	174,420	140,500	105,400	1400	1600	12	193,140	155,580	116,700	1600	1750
1-1/2	6	252,900	203,720	152,800	2900	3250	12	284,580	229,240	171,900	3300	3650

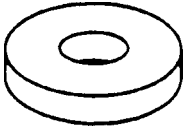
NOTES:
 A – Tensile Strength calculated at 180,000 p.s.i.
 B – Proof Load calculated at 145,000 p.s.i. which is 80% of Tensile Strength. The yield strength of L9[®] bolts is 155,000 p.s.i.
 C – Clamp Load calculated at 108,750 p.s.i. which is 75% of Proof Load.
 D – Based on using one L9[®] bolt, one L9[®] nut, one I9 washer under the bolt head and one L9[®] washer under the nut.
 E – Same as “D” above.

USER CAUTIONS: Avoid fastener, and possible joint failure, by observing the following:

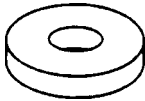
1. Do not substitute components. Non Grade 9 components may not meet the systems requirements. Hillco Fastener Warehouse is not responsible for any failures in use Grade 9 if substitutions are made of any component or finish of the system (i.e. bolt, nut, or washer).
2. Do not alter the coatings as this can result in erratic and unpredictable clamp loads. Do not use supplementary lubricants.
3. Do not use Grade 9 in service environments exceeding 400° Fahrenheit. Any cadmium or zinc plated product is subject to degradation of corrosion resistance and possible liquid metal embrittlement at temperatures exceeding 400° Fahrenheit.
4. Discuss the use of Grade 9 bolts and washers in tapped holes with Hillco’s staff to establish correct tightening torques and methods. Excessive or insufficient clamp loads can cause major problems.
5. When tightening Grade 9 bolts, use the recommended torque values. The self-lubricating features of the Grade 9 system reduce required torques so that in some instances they are below those needed to tighten Grade 8 bolts.

EXTRA THICK FLAT WASHERS

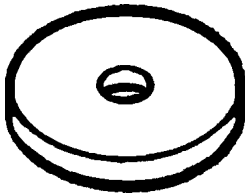
Zinc plated, yellow dichromate finish. Multiple heat treated & baked. Exceeds all ASTM A325 and A490 specifications. Eliminates bolt failure caused by ordinary flat washers "dishing out" and allowing assembly to vibrate loose.



HIGH ALLOY HEAVY DUTY USS FLAT WASHERS YELLOW ZINC CHROMATE					
Part No.	Bolt Size	O.D.	Thickness	Price Per	
				Each	100
9USS250HD	1/4	3/4"	.098	\$.21	\$ 17.05
9USS310HD	5/16	7/8"	.098	.25	19.73
9USS380HD	3/8	1"	.118	.30	24.03
9USS440HD	7/16	1-1/4"	.118	.58	46.40
9USS500HD	1/2	1-3/8"	.199	.97	77.48
9USS560HD	9/16	1-1/2"	.199	1.20	95.68
9USS580HD	5/8	1-3/4"	.250	1.52	121.68
9USS750HD	3/4	2"	.250	1.90	152.25
9USS780HD	7/8	2-1/4"	.250	2.56	204.95
9USS900HD	1	2-1/2"	.250	2.74	219.38



HIGH ALLOY HEAVY DUTY SAE FLAT WASHERS YELLOW ZINC CHROMATE					
9SAE250HD	1/4	5/8"	.086	.20	15.75
9SAE310HD	5/16	11/16"	.086	.23	18.38
9SAE380HD	3/8	13/16"	.108	.26	21.00
9SAE440HD	7/16	15/16"	.108	.36	28.88
9SAE500HD	1/2	1-1/16"	.199	.64	51.18
9SAE560HD	9/16	1-3/16"	.199	.77	61.65
9SAE580HD	5/8	1-5/16"	.250	1.45	116.10
9SAE750HD	3/4	1-1/2"	.250	1.46	116.98
9SAE780HD	7/8	1-3/4"	.250	1.84	147.48
9SAE900HD	1	2"	.250	2.27	181.35



EXTRA THICK FENDER WASHERS BRIGHT ZINC					
2250100HD	1/4	1"	.125	.36	28.55
2250150HD	1/4	1-1/2"	.125	.49	39.00
2310125HD	5/16	1-1/4"	.125	.42	33.93
2310175HD	5/16	1-3/4"	.125	.56	44.70
2380125HD	3/8	1-1/4"	.125	.42	33.75
2380175HD	3/8	1-3/4"	.125	.50	39.85
2500200HD	1/2	2"	.125	.56	44.40

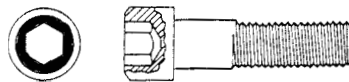
**SOCKET PRODUCTS
HEAT TREATED ALLOY STEEL – PLAIN**

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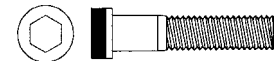
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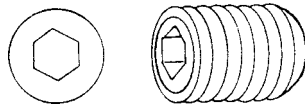
Hi-Collar Lock Washers



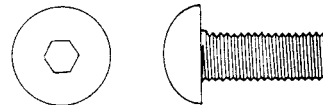
Socket Head Cap Screw



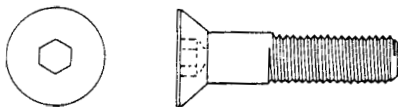
Low Head Socket Cap Screw



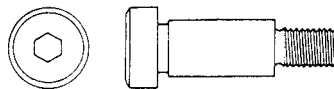
Socket Set Screw



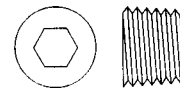
Button Head Socket Cap Screw



Flat Head Socket Cap Screws



Socket Head Shoulder Bolts



Socket Pipe Plug

SOCKET PRODUCTS -- HEAT TREATED ALLOY STEEL -- PLAIN

HI COLLAR LOCK WASHERS			
Part No.	Size	Price Per	
		Each	100
SP0625LW	#4	\$.05	\$ 4.08
SP0938LW	#6	.06	4.47
SP125LW	#8	.06	4.68
SP188LW	#10	.06	4.86
SP250LW	1/4	.06	5.07
SP310LW	5/16	.07	5.85
SP380LW	3/8	.10	8.19
SP440LW	7/16	.17	13.44
SP050LW	1/2	.32	25.32
SP580LW	5/8	.44	35.46
SP750LW	3/4	.70	56.13
SP780LW	7/8	1.08	86.34
SP900LW	1	1.55	123.75
SP925LW	1-1/4	2.18	174.42

1960 SERIES SOCKET HEAD CAP SCREWS					
SP0625038S	4/40	x	3/8	.07	5.25
SP0625050S			1/2	.07	5.49
SP0625058S			5/8	.07	5.64
SP0625075S			3/4	.08	6.06
SP0780025S	5/40	x	1/4	.07	5.25
SP0780038S			3/8	.07	5.49
SP0780050S			1/2	.07	5.61
SP0780058S			5/8	.07	5.67
SP0780075S			3/4	.08	6.15
SP0780100S*			1	.39	31.25
SP0780125S*			1-1/4	.50	40.00
SP0780150S*			1-1/2	.55	44.00
SP0780200S*			2	.60	48.00
SP0938025S	6/32	x	1/4	.07	5.31
SP0938038S			3/8	.07	5.52
SP0938050S			1/2	.07	5.64
SP0938058S			5/8	.07	5.85
SP0938075S			3/4	.08	6.27
SP0938078S			7/8	.08	6.69
SP0938100S			1	.09	7.11
SP0938125S			1-1/4	.37	29.88
SP0938150S			1-1/2	.45	36.00
SP0938175S			1-3/4	.56	45.00
SP0938200S*			2	.69	55.00
SP0938225S*			2-1/4	.86	68.75
SP0938250S*			2-1/2	1.02	81.25
SP0938275S*			2-3/4	1.09	87.50
SP0938300S*			3	1.16	92.50

*Non standard – call re availability.

1960 SERIES SOCKET HEAD CAP SCREWS					
Part No.	Size		Price Per		
			Each	100	
SP125025S	8/32	x	1/4	\$.07	\$ 5.64
SP125038S			3/8	.07	5.70
SP125050S			1/2	.07	5.76
SP125058S			5/8	.07	5.88
SP125075S			3/4	.08	6.33
SP125078S			7/8	.08	6.72
SP125100S			1	.09	7.32
SP125125S			1-1/4	.12	9.36
SP125150S			1-1/2	.13	10.47
S0125175S*			1-3/4	.51	40.63
SP125200S*			2	.58	46.00
SP125225S*			2-1/4	.70	56.25
SP125250S*			2-1/2	.78	62.50
SP125275S*			2-3/4	.92	73.75
SP125300S*			3	1.02	81.25
SP125325S*			3-1/4	1.16	92.50
SP125350S*			3-1/2	1.23	98.30
SP125400S*			4	1.34	106.85
SP188C038S	10/24	x	3/8	.07	5.79
SP188C050S			1/2	.07	5.88
SP188C058S			5/8	.08	6.27
SP188C075S			3/4	.08	6.66
SP188C078S			7/8	.09	7.47
SP188C100S			1	.10	7.83
SP188C125S			1-1/4	.13	10.20
SP188C150S			1-1/2	.15	12.24
SP188C175S			1-3/4	.17	13.35
SP188C200S			2	.18	14.61
SP188C225S*			2-1/4	.53	42.50
SP188C250S*			2-1/2	.66	52.50
SP188C275S*			2-3/4	.78	62.50
SP188C300S*			3	.94	75.00
SP188C325S*			3-1/4	1.31	105.00
SP188C350S*			3-1/2	1.44	115.00
SP188C400S*			4	1.50	120.00
SP188C450S*			4-1/2	3.50	280.00
SP188C500S*			5	4.13	330.00
SP188C600S*			6	4.69	375.00
SP188F038S	10/32	x	3/8	.07	5.79
SP188F050S			1/2	.07	5.88
SP188F058S			5/8	.08	6.27
SP188F075S			3/4	.08	6.66
SP188F078S			7/8	.09	7.47
SP188F100S			1	.10	7.83
SP188F125S			1-1/4	.13	10.20

SOCKET PRODUCTS -- HEAT TREATED ALLOY STEEL -- PLAIN

1960 SERIES SOCKET HEAD CAP SCREWS						1960 SERIES SOCKET HEAD CAP SCREWS					
Part No.	Size		Price Per			Part No.	Size		Price Per		
			Each	100					Each	100	
SP188F150S	10/32	x	1-1/2	\$.15	\$ 12.24	SP250F038S	1/4-28	x	3/8	\$.11	\$ 9.63
SP188F175S			1-3/4	.17	13.35	SP250F050S			1/2	.09	8.13
SP188F200S			2	.18	14.61	SP250F058S			5/8	.10	8.31
SP188F225S			2-1/4	.56	44.63	SP250F075S			3/4	.10	8.76
SP188F250S*			2-1/2	.69	55.13	SP250F078S			7/8	.11	9.63
SP188F275S*			2-3/4	.82	65.63	SP250F100S			1	.12	10.59
SP188F300S*			3	.98	78.75	SP250F125S			1-1/4	.13	11.40
SP188F325S*			3-1/4	1.16	93.00	SP250F150S			1-1/2	.15	13.26
SP188F350S*			3-1/2	1.25	102.00	SP250F175S			1-3/4	.17	15.09
SP188F400S*			4	1.32	108.00	SP250F200S			2	.20	16.95
SP188F450S*			4-1/2	3.10	270.00	SP250F225S			2-1/4	.26	22.44
SP188F500S*			5	3.63	294.00	SP250F250S*			2-1/2	.64	51.25
SP188F600S*			6	4.12	333.00	SP250F275S*			2-3/4	.69	55.00
SP220C038S*	12/24	x	3/8	.45	36.25	SP250F300S*			3	.78	62.50
SP220C050S*			1/2	.50	40.00	SP250F325S*			3-1/4	2.03	146.25
SP220C058S*			5/8	.55	43.75	SP250F350S*			3-1/2	2.40	176.25
SP220C075S*			3/4	.60	48.00	SP250F400S*			4	2.55	183.75
SP220C100S*			1	.67	53.75	SP250F450S*			4-1/2	4.00	292.50
SP220C125S*			1-1/4	.72	57.50	SP250F500S*			5	4.40	318.75
SP220C150S*			1-1/2	.84	67.25	SP250F550S*			5-1/2	4.98	363.75
SP220C175S*			1-3/4	1.03	82.50	SP250F600S*			6	6.35	461.25
SP220C200S*			2	1.25	100.00	SP310C038S	5/16-18	x	3/8	.19	16.29
SP220C225S*			2-1/4	1.35	108.10	SP310C050S			1/2	.15	12.75
SP220C250S*			2-1/2	1.41	112.55	SP310C058S			5/8	.15	13.26
SP250C038S	1/4-20	x	3/8	.11	9.18	SP310C075S			3/4	.17	14.37
SP250C050S			1/2	.09	7.77	SP310C078S			7/8	.17	14.82
SP250C058S			5/8	.10	7.92	SP310C100S			1	.18	15.75
SP250C075S			3/4	.10	8.34	SP310C125S			1-1/4	.22	19.05
SP250C078S			7/8	.11	9.18	SP310C150S			1-1/2	.23	19.92
SP250C100S			1	.12	10.05	SP310C175S			1-3/4	.26	22.62
SP250C125S			1-1/4	.13	10.89	SP310C200S			2	.27	23.34
SP250C150S			1-1/2	.15	12.63	SP310C225S			2-1/4	.33	28.68
SP250C175S			1-3/4	.17	14.37	SP310C250S			2-1/2	.36	31.11
SP250C200S			2	.20	16.14	SP310C275S			2-3/4	.43	37.44
SP250C225S			2-1/4	.26	20.01	SP310C300S			3	.47	41.07
SP250C250S			2-1/2	.28	22.98	SP310C325S			3-1/4	.55	47.46
SP250C275S			2-3/4	.32	26.76	SP310C350S			3-1/2	.62	53.70
SP250C300S			3	.37	30.45	SP310C375S*			3-3/4	2.13	153.75
SP250C325S*			3-1/4	1.85	135.00	SP310C400S			4	.90	78.48
SP250C350S			3-1/2	.63	50.43	SP310C450S*			4-1/2	4.25	340.00
SP250C375S*			3-3/4	2.08	150.00	SP310C500S*			5	4.81	385.00
SP250C400S			4	.78	64.98	SP310C550S*			5-1/2	5.88	470.00
SP250C450S*			4-1/2	3.60	262.50	SP310C600S*			6	8.00	640.00
SP250C500S*			5	4.00	292.50	SP310F038S*	5/16-24	x	3/8	1.38	110.00
SP250C550S*			5-1/2	4.50	330.00	SP310F050S			1/2	.17	13.65
SP250C600S*			6	5.25	382.50	SP310F058S			5/8	.18	14.46
SP250C650S*			6-1/2	5.97	453.75	SP310F075S			3/4	.18	14.70
SP250C700S*			7	6.19	483.75	SP310F078S			7/8	.19	15.09

*Non standard – call re availability.

SOCKET PRODUCTS -- HEAT TREATED ALLOY STEEL -- PLAIN

1960 SERIES SOCKET HEAD CAP SCREWS					1960 SERIES SOCKET HEAD CAP SCREWS				
Part No.	Size	Price Per			Part No.	Size	Price Per		
		Each	100	Each			100		
SP500C038S*	1/2-13 x 3/8	\$ 4.13	\$330.00	SP560C250S*	9/16-12 x 2-1/2	\$ 10.95	\$ 876.00		
SP500C050S	1/2	.86	68.58	SP560C275S*	2-3/4	12.04	963.00		
SP500C058S	5/8	.72	57.66	SP560C300S*	3	13.13	1050.00		
SP500C075S	3/4	.54	43.44	SP560C350S*	3-1/2	13.99	1119.00		
SP500C078S	7/8	.52	41.97	SP560C400S*	4	14.36	1149.00		
SP500C100S	1	.57	45.75	SP560C450S*	4-1/2	18.83	1506.00		
SP500C125S	1-1/4	.61	48.78	SP560C500S*	5	22.35	1788.00		
SP500C150S	1-1/2	.70	55.65	SP560C550S*	5-1/2	25.88	2070.00		
SP500C175S	1-3/4	.74	59.34	SP560C600S*	6	27.86	2229.00		
SP500C200S	2	.80	63.63	SP560F100S*	9/16-18 x 1	8.10	648.00		
SP500C225S	2-1/4	.96	76.41	SP560F125S*	1-1/4	8.59	687.00		
SP500C250S	2-1/2	.97	77.25	SP560F150S*	1-1/2	9.11	729.00		
SP500C275S	2-3/4	1.09	86.85	SP560F175S*	1-3/4	10.09	807.00		
SP500C300S	3	1.16	92.40	SP560F200S*	2	10.91	873.00		
SP500C325S	3-1/4	1.22	97.95	SP560F225S*	2-1/4	11.55	924.00		
SP500C350S	3-1/2	1.37	109.77	SP560F250S*	2-1/2	13.24	1059.00		
SP500C400S	4	1.56	124.41	SP560F300S*	3	14.44	1155.00		
SP500C450S	4-1/2	1.92	153.75	SP560F400S*	4	15.83	1266.00		
SP500C500S	5	2.17	173.55	SP560F450S*	4-1/2	20.70	1656.00		
SP500C550S	5-1/2	2.46	196.74	SP560F500S*	5	24.60	1968.00		
SP500C600S	6	2.69	215.49	SP560F550S*	5-1/2	28.43	2274.00		
SP500F050S*	1/2-20 x 1/2	2.84	227.50	SP560F600S*	6	30.64	2451.00		
SP500F058S*	5/8	3.00	240.00	SP580C058S*	5/8-11 x 5/8	5.66	452.50		
SP500F075S*	3/4	3.19	255.00	SP580C075S*	3/4	5.97	477.50		
SP500F078S*	7/8	3.31	265.00	SP580C078S*	7/8	6.25	500.00		
SP500F100S	1	.63	50.34	SP580C100S	1	1.17	93.69		
SP500F125S	1-1/4	.67	53.67	SP580C125S	1-1/4	1.19	95.34		
SP500F150S	1-1/2	.77	61.20	SP580C150S	1-1/2	1.25	100.14		
SP500F175S	1-3/4	.82	65.25	SP580C175S	1-3/4	1.30	104.16		
SP500F200S	2	.87	69.99	SP500C200S	2	1.43	114.27		
SP500F225S	2-1/4	1.01	80.70	SP500C225S	2-1/4	1.62	129.36		
SP500F250S	2-1/2	1.18	94.68	SP580C250S	2-1/2	1.65	131.94		
SP500F275S*	2-3/4	4.56	365.00	SP580C275S	2-3/4	1.83	146.73		
SP500F300S	3	1.39	111.39	SP580C300S	3	2.03	162.63		
SP500F325S*	3-1/4	4.78	382.50	SP580C325S	3-1/4	2.10	168.18		
SP500F350S*	3-1/2	5.09	407.50	SP580C350S	3-1/2	2.21	177.15		
SP500F375S*	3-3/4	5.28	422.50	SP580C375S*	3-3/4	14.50	1160.00		
SP500F400S*	4	5.53	442.50	SP580C400S	4	2.51	201.00		
SP500F450S*	4-1/2	6.47	517.50	SP580C425S*	4-1/4	15.78	1262.50		
SP500F500S*	5	8.13	650.00	SP580C450S	4-1/2	2.89	231.00		
SP500F550S*	5-1/2	11.34	907.50	SP580C500S	5	3.22	257.97		
SP500F600S*	6	12.63	1010.00	SP580C550S	5-1/2	3.62	289.23		
SP560C100S*	9/16-12 x 1	7.35	588.00	SP580C600S	6	4.06	325.08		
SP560C125S*	1-1/4	7.80	624.00	SP580F100S	5/8-18 x 1	1.34	106.80		
SP560C150S*	1-1/2	8.29	663.00	SP580F125S	1-1/4	1.37	109.98		
SP560C175S*	1-3/4	9.19	735.00	SP580F150S	1-1/2	1.43	114.21		
SP560C200S*	2	9.90	792.00	SP580F175S	1-3/4	1.51	121.05		
SP560C225S*	2-1/4	10.50	840.00						

*Non standard – call re availability.

SOCKET PRODUCTS -- HEAT TREATED ALLOY STEEL -- PLAIN

1960 SERIES SOCKET HEAD CAP SCREWS				
Part No.	Size	Price Per		
		Each	100	
SP580F200S	5/8-18 x 2	\$ 1.66	\$133.05	
SP580F225S*	2-1/4	8.75	700.00	
SP580F250S	2-1/2	2.03	162.51	
SP580F275S*	2-3/4	10.44	835.00	
SP580F300S*	3	10.78	862.50	
SP580F325S*	3-1/4	12.19	975.00	
SP580F350S*	3-1/2	12.84	1027.50	
SP580F400S*	4	14.25	1140.00	
SP580F450S*	4-1/2	15.63	1250.00	
SP580F500S*	5	17.00	1360.00	
SP580F550S*	5-1/2	19.09	1527.50	
SP580F600S*	6	21.13	1690.00	
SP750C100S*	3/4-10 x 1	11.63	930.00	
SP750C125S	1-1/4	1.92	153.39	
SP750C150S	1-1/2	1.95	155.61	
SP750C175S	1-3/4	2.04	163.35	
SP750C200S	2	2.21	176.49	
SP750C225S	2-1/4	2.42	193.95	
SP750C250S	2-1/2	2.50	200.16	
SP750C275S	2-3/4	2.74	219.24	
SP750C300S	3	2.91	232.86	
SP750C325S	3-1/4	3.27	261.75	
SP750C350S	3-1/2	3.46	276.48	
SP750C375S*	3-3/4	14.94	1195.00	
SP750C400S	4	3.64	291.06	
SP750C425S*	4-1/4	15.63	1250.00	
SP750C450S	4-1/2	4.25	340.02	
SP750C475S*	4-3/4	17.38	1390.00	
SP750C500S	5	4.74	379.20	
SP750C550S	5-1/2	5.29	422.85	
SP750C600S	6	5.69	455.28	
SP750F125S*	3/4-16 x 1-1/4	6.25	500.00	
SP750F150S*	1-1/2	6.47	517.50	
SP750F175S*	1-3/4	6.88	550.00	
SP750F200S*	2	7.22	577.50	
SP750F225S*	2-1/4	7.78	622.50	
SP750F250S*	2-1/2	8.25	660.00	
SP750F275S*	2-3/4	8.78	702.50	
SP750F300S*	3	9.34	747.50	
SP750F325S*	3-1/4	9.94	795.00	
SP750F350S*	3-1/2	10.56	845.00	
SP750F400S*	4	12.00	960.00	
SP750F450S*	4-1/2	13.22	1057.50	
SP750F500S*	5	14.44	1155.00	
SP750F550S*	5-1/2	15.69	1255.00	

LOW HEAD ALLOY SOCKET CAP SCREWS					
Part No.	Size	Price Per			
		Each	100		
SP125038LS	8/32 x 3/8	\$.30	\$ 24.00		
SP125050LS	1/2	.30	24.36		
SP125058LS	5/8	.34	26.97		
SP125075LS	3/4	.35	27.75		
SP125100LS	1	.39	30.81		
SP188C038LS	10/24 x 3/8	.31	25.05		
SP188C050LS	1/2	.32	25.26		
SP188C058LS	5/8	.34	27.57		
SP188C075LS	3/4	.35	27.93		
SP188C100LS	1	.39	31.02		
SP188F038LS	10/32 x 3/8	.31	25.05		
SP188F050LS	1/2	.32	25.26		
SP188F058LS	5/8	.34	27.57		
SP188F075LS	3/4	.35	27.93		
SP188F100LS	1	.39	31.02		
SP250C038LS	1/4-20 x 3/8	.32	25.44		
SP250C050LS	1/2	.34	27.36		
SP250C058LS	5/8	.35	27.75		
SP250C075LS	3/4	.35	28.23		
SP250C100LS	1	.40	31.98		
SP250C125LS	1-1/4	.48	38.67		
SP310C050LS	5/16-18 x 1/2	.39	31.02		
SP310C058LS	5/8	.39	31.41		
SP310C075LS	3/4	.40	32.19		
SP310C100LS	1	.46	36.75		
SP310C125LS	1-1/4	.54	43.47		
SP310C150LS	1-1/2	.65	52.08		
SP380C050LS	3/8-16 x 1/2	.50	40.38		
SP380C058LS	5/8	.53	42.21		
SP380C075LS	3/4	.54	43.41		
SP380C100LS	1	.62	49.38		
SP380C125LS	1-1/4	.67	53.97		
SP380C150LS	1-1/2	.73	58.38		
SP500C075LS	1/2-13 x 3/4	1.20	95.88		
SP500C100LS	1	1.25	100.32		
SP500C125LS	1-1/4	1.39	111.00		
SP500C150LS	1-1/2	1.55	124.02		

SOCKET SET SCREWS/CUP POINT					
SP0625018CP	4/40 x 1/8	.07	5.58		
SP0625025CP	1/4	.07	5.88		
SP0625038CP	3/8	.08	6.18		

Need a size not listed in our catalog? Call for price and availability.

*Non standard – call re availability.

SOCKET PRODUCTS -- HEAT TREATED ALLOY STEEL -- PLAIN

SOCKET SET SCREWS/CUP POINT					SOCKET SET SCREWS/CUP POINT				
Part No.	Size		Price Per		Part No.	Size		Price Per	
			Each	100				Each	100
SP0625050CP	4/40	x 1/2	\$.08	\$ 6.75	SP250F025CP	1/4-28	x 1/4	\$.08	\$ 6.42
SP0625058CP		5/8	.23	18.06	SP250F038CP		3/8	.08	6.66
SP0938018CP	6/32	x 1/8	.07	5.76	SP250F050CP		1/2	.09	6.96
SP0938025CP		1/4	.07	5.94	SP250F058CP		5/8	.11	9.12
SP0938038CP		3/8	.08	6.15	SP250F075CP		3/4	.13	10.35
SP0938050CP		1/2	.08	6.42	SP250F100CP		1	.18	14.58
SP0938058CP		5/8	.11	8.73	SP250F125CP		1-1/4	.25	19.62
SP0938075CP		3/4	.14	10.80	SP310C025CP	5/16-18	x 1/4	.12	9.42
SP0938078CP		7/8	.15	11.64	SP310C038CP		3/8	.11	8.76
SP0938100CP		1	.18	14.07	SP310C050CP		1/2	.12	9.54
SP125018CP	8/32	x 1/8	.08	6.48	SP310C058CP		5/8	.15	12.36
SP125025CP		1/4	.07	5.97	SP310C075CP		3/4	.17	13.83
SP125038CP		3/8	.08	6.24	SP310C078CP		7/8	.22	17.64
SP125050CP		1/2	.08	6.45	SP310C100CP		1	.23	18.75
SP125058CP		5/8	.11	8.43	SP310C125CP		1-1/4	.31	24.45
SP125075CP		3/4	.12	9.60	SP310C150CP		1-1/2	.41	32.94
SP125078CP		7/8	.13	10.74	SP310C175CP		1-3/4	.47	37.92
SP125100CP		1	.17	13.20	SP310C200CP		2	.54	43.02
SP188C025CP	10/24	x 1/4	.08	6.36	SP310F025CP	5/16-24	x 1/4	.12	9.42
SP188C038CP		3/8	.08	6.63	SP310F038CP		3/8	.12	9.21
SP188C050CP		1/2	.09	6.93	SP310F050CP		1/2	.13	10.02
SP188C058CP		5/8	.11	9.00	SP310F058CP		5/8	.16	12.99
SP188C075CP		3/4	.12	9.81	SP310F075CP		3/4	.18	14.52
SP188C078CP		7/8	.14	10.86	SP310F100CP		1	.25	19.71
SP188C100CP		1	.17	13.65	SP310F125CP		1-1/4	.32	25.68
SP188C125CP		1-1/4	.21	16.92	SP380C025CP	3/8-16	x 1/4	.19	15.12
SP188F025CP	10/32	x 1/4	.08	6.36	SP380C038CP		3/8	.13	10.05
SP188F038CP		3/8	.08	6.63	SP380C050CP		1/2	.15	11.79
SP188F050CP		1/2	.09	6.93	SP380C058CP		5/8	.19	15.09
SP188F058CP		5/8	.11	9.00	SP380C075CP		3/4	.20	16.02
SP188F075CP		3/4	.12	9.81	SP380C078CP		7/8	.32	25.44
SP188F078CP		7/8	.14	10.86	SP380C100CP		1	.33	26.64
SP188F100CP		1	.17	13.65	SP380C125CP		1-1/4	.36	28.53
SP188F125CP		1-1/4	.21	16.92	SP380C150CP		1-1/2	.47	37.98
SP250C025CP	1/4-20	x 1/4	.08	6.42	SP380C175CP		1-3/4	.58	46.41
SP250C038CP		3/8	.08	6.66	SP380C200CP		2	.66	52.59
SP250C050CP		1/2	.09	6.96	SP380C250CP		2-1/2	.88	70.65
SP250C058CP		5/8	.11	9.12	SP380F025CP	3/8-24	x 1/4	.20	15.87
SP250C075CP		3/4	.13	10.35	SP380F038CP		3/8	.14	11.25
SP250C078CP		7/8	.14	11.55	SP380F050CP		1/2	.15	12.36
SP250C100CP		1	.18	14.58	SP380F058CP		5/8	.20	15.87
SP250C125CP		1-1/4	.25	19.62	SP380F075CP		3/4	.22	17.67
SP250C150CP		1-1/2	.32	25.74	SP380F100CP		1	.35	28.05
SP250C175CP		1-3/4	.37	29.46	SP380F125CP		1-1/4	.39	31.41
SP250C200CP		2	.42	33.78	SP380F150CP		1-1/2	.52	41.97

*Non standard – call re availability.

SOCKET PRODUCTS -- HEAT TREATED ALLOY STEEL -- PLAIN

SOCKET SET SCREWS/CUP POINT				
Part No.	Size	Price Per		
		Each	100	
SP440C038CP	7/16-14 x	3/8	\$.31	\$ 24.81
SP440C050CP		1/2	.32	25.71
SP440C058CP		5/8	.36	29.04
SP440C075CP		3/4	.39	31.26
SP440C078CP		7/8	.43	34.62
SP440C100CP		1	.50	39.72
SP440C125CP		1-1/4	.60	47.97
SP440C150CP		1-1/2	.69	54.90
SP440C200CP		2	.86	68.76
SP440F038CP	7/16-20 x	3/8	.34	27.27
SP440F050CP		1/2	.35	28.29
SP500C038CP	1/2-13 x	3/8	.33	26.31
SP500C050CP		1/2	.33	26.16
SP500C058CP		5/8	.37	29.43
SP500C075CP		3/4	.40	31.68
SP500C078CP		7/8	.44	35.04
SP500C100CP		1	.50	40.20
SP500C125CP		1-1/4	.61	48.72
SP500C150CP		1-1/2	.70	56.04
SP500C175CP		1-3/4	.87	69.63
SP500C200CP		2	.97	77.70
SP500C250CP		2-1/2	1.24	99.12
SP500C300CP		3	1.54	123.06
SP500F050CP	1/2-20 x	1/2	.36	28.59
SP500F058CP		5/8	.39	30.87
SP500F075CP		3/4	.42	33.21
SP500F100CP		1	.53	42.06

BUTTON HEAD SOCKET CAP SCREWS				
SP0938025B	6/32 x	1/4	.07	5.25
SP0938038B		3/8	.07	5.43
SP0938050B		1/2	.07	5.58
SP0938058B		5/8	.07	5.97
SP0938075B		3/4	.33	26.25
SP0938100B*		1	.40	31.88
SP0938125B*		1-1/4	.41	32.88
SP0938150B*		1-1/2	.50	39.63
SP125025B	8/32 x	1/4	.07	5.67
SP125038B		3/8	.07	5.79
SP125050B		1/2	.07	5.91
SP125058B		5/8	.08	6.33
SP125075B		3/4	.08	6.72
SP125100B*		1	.27	21.25
SP125125B*		1-1/4	.50	40.00
SP125150B*		1-1/2	.59	46.88

BUTTON HEAD SOCKET CAP SCREWS				
Part No.	Size	Price Per		
		Each	100	
SP188C025B	10/24 x	1/4	\$.07	\$ 5.91
SP188C038B		3/8	.08	6.15
SP188C050B		1/2	.08	6.51
SP188C058B		5/8	.09	6.99
SP188C075B		3/4	.09	7.32
SP188C100B		1	.10	8.37
SP188C125B*		1-1/4	.34	27.00
SP188C150B*		1-1/2	.36	28.50
SP188F025B	10/32 x	1/4	.07	5.91
SP188F038B		3/8	.08	6.15
SP188F050B		1/2	.08	6.51
SP188F058B		5/8	.09	6.99
SP188F075B		3/4	.09	7.32
SP188F100B		1	.10	8.37
SP188F125B*		1-1/4	.37	29.73
SP188F150B*		1-1/2	.39	31.40
SP250C038B	1/4-20 x	3/8	.10	8.07
SP250C050B		1/2	.10	8.37
SP250C058B		5/8	.11	8.46
SP250C075B		3/4	.12	9.27
SP250C078B		7/8	.12	9.90
SP250C100B		1	.13	10.68
SP250C125B*		1-1/4	.28	22.50
SP250C150B*		1-1/2	.34	27.20
SP250C175B*		1-3/4	.41	32.80
SP250C200B*		2	.47	37.50
SP250F038B	1/4-28 x	3/8	.11	8.46
SP250F050B		1/2	.11	8.70
SP250F058B		5/8	.11	8.88
SP250F075B		3/4	.12	9.75
SP250F100B		1	.14	11.19
SP250F125B*		1-1/4	.41	33.00
SP250F150B*		1-1/2	.50	39.88
SP250F175B*		1-3/4	.64	51.25
SP250F200B*		2	.71	56.50
SP310C038B	5/16-18 x	3/8	.16	12.57
SP310C050B		1/2	.16	12.48
SP310C058B		5/8	.16	12.96
SP310C075B		3/4	.17	13.68
SP310C078B		7/8	.18	14.61
SP310C100B		1	.20	15.72
SP310C125B*		1-1/4	.38	30.36
SP310C150B*		1-1/2	.46	37.11
SP310C175B*		1-3/4	.60	48.36
SP310C200B*		2	.67	53.46

*Non standard – call re availability.

SOCKET PRODUCTS -- HEAT TREATED ALLOY STEEL -- PLAIN

BUTTON HEAD SOCKET CAP SCREWS				
Part No.	Size	Price Per		
		Each	100	
SP310C225B*	5/16-18 x 2-1/4	\$.74	\$ 59.40	
SP310C250B*	2-1/2	.83	66.00	
SP310C300B*	3	.90	72.00	
SP310F038B	5/16-24 x 3/8	.62	49.50	
SP310F050B	1/2	.58	46.68	
SP310F058B	5/8	.61	48.72	
SP310F075B	3/4	.64	51.24	
SP310F100B	1	.74	58.92	
SP310F125B*	1-1/4	.56	44.55	
SP310F150B*	1-1/2	.64	51.15	
SP310F175B*	1-3/4	.98	78.00	
SP310F200B*	2	1.07	85.20	
SP380C050B	3/8-16 x 1/2	.24	19.59	
SP380C058B	5/8	.25	20.10	
SP380C075B	3/4	.26	20.97	
SP380C078B	7/8	.28	22.32	
SP380C100B	1	.30	23.64	
SP380C125B	1-1/4	.34	26.82	
SP380C150B*	1-1/2	.64	51.00	
SP380C175B*	1-3/4	.79	63.00	
SP380C200B*	2	.86	69.00	
SP380C225B*	2-1/4	.94	75.00	
SP380C250B*	2-1/2	.98	78.00	
SP380C275B*	2-3/4	1.05	84.00	
SP380C300B*	3	1.31	105.00	
SP380C350B*	3-1/2	2.06	165.00	
SP380C400B*	4	2.29	183.00	
SP380F050B	3/8-24 x 1/2	.27	21.66	
SP380F058B	5/8	.27	21.93	
SP380F075B	3/4	.28	22.71	
SP380F100B	1	.33	26.70	
SP380F125B*	1-1/4	.64	51.00	
SP380F150B*	1-1/2	.71	57.00	
SP380F175B*	1-3/4	.79	63.00	
SP380F200B*	2	.86	69.00	
SP380F225B*	2-1/4	1.01	81.00	
SP380F250B*	2-1/2	1.09	87.00	
SP380F300B*	3	1.46	117.00	
SP500C100B	1/2-13 x 1	.57	45.81	
SP500C125B	1-1/4	.67	53.31	
SP500C150B	1-1/2	.73	58.41	
SP500C175B*	1-3/4	2.55	204.00	
SP500C200B	2	.92	73.74	
SP500C225B*	2-1/4	3.04	243.00	
SP500C250B*	2-1/2	3.38	270.00	
SP500C300B*	3	4.05	324.00	

BUTTON HEAD SOCKET CAP SCREWS				
Part No.	Size	Price Per		
		Each	100	
SP500C350B*	1/2-13 x 3-1/2	\$ 4.80	\$384.00	
SP500C400B*	4	6.08	486.00	
SP500F100B*	1/2-20 x 1	1.95	156.00	
SP500F125B*	1-1/4	2.40	192.00	
SP500F150B*	1-1/2	2.51	201.00	
SP500F200B*	2	2.93	234.00	
SP500F250B*	2-1/2	3.68	294.00	
SP500F300B*	3	4.50	360.00	
SP500F400B*	4	6.68	534.00	
SP580C100B	5/8-11 x 1	1.17	93.90	
SP580C125B	1-1/4	1.29	102.87	
SP580C150B	1-1/2	1.40	112.29	
SP580C200B	2	1.72	137.64	
SP580C225B*	2-1/4	4.69	375.00	
SP580C250B*	2-1/2	5.14	411.00	
SP580C300B*	3	5.66	453.00	

FLAT HEAD SOCKET CAP SCREWS				
Part No.	Size	Price Per		
		Each	100	
SP0938025F	6/32 x 1/4	.07	5.61	
SP0938038F	3/8	.07	5.79	
SP0938050F	1/2	.08	6.00	
SP0938058F	5/8	.08	6.18	
SP0938075F	3/4	.08	6.48	
SP0938100F*	1	.47	37.95	
SP0938125F*	1-1/4	.49	39.45	
SP0938150F*	1-1/2	.59	47.55	
SP125038F	8/32 x 3/8	.07	5.85	
SP125050F	1/2	.08	6.06	
SP125058F	5/8	.08	6.21	
SP125075F	3/4	.08	6.63	
SP125100F	1	.10	7.77	
SP125125F*	1-1/4	.60	48.00	
SP125150F*	1-1/2	.70	56.25	
SP188C038F	10/24 x 3/8	.08	6.36	
SP188C050F	1/2	.08	6.48	
SP188C058F	5/8	.09	6.93	
SP188C075F	3/4	.09	7.53	
SP188C100F	1	.10	8.07	
SP188C125F	1-1/4	.14	11.16	
SP188C150F	1-1/2	.16	12.93	

*Non standard – call re availability.

Socket products in this section are not plated and are rated Grade 8 or stronger. Zinc plated socket products are available as special order items, and must be purchased by the box. Call for price & availability.

SOCKET PRODUCTS -- HEAT TREATED ALLOY STEEL -- PLAIN

FLAT HEAD SOCKET CAP SCREWS					
Part No.	Size	Price Per			
		Each	100		
SP188F038F	10/32 x 3/8	\$.08	\$ 6.36		
SP188F050F	1/2	.08	6.48		
SP188F058F	5/8	.09	6.93		
SP188F075F	3/4	.09	7.53		
SP188F100F	1	.10	8.07		
SP188F125F	1-1/4	.14	11.16		
SP188F150F	1-1/2	.16	12.93		
SP250C038F	1/4-20 x 3/8	.11	8.58		
SP250C050F	1/2	.11	8.70		
SP250C058F	5/8	.11	9.12		
SP250C075F	3/4	.12	9.48		
SP250C100F	1	.13	10.62		
SP250C125F	1-1/4	.16	13.08		
SP250C150F	1-1/2	.18	14.49		
SP250C175F	1-3/4	.22	17.73		
SP250C200F	2	.24	19.50		
SP250F038F	1/4-28 x 3/8	.11	9.00		
SP250F050F	1/2	.11	9.18		
SP250F058F	5/8	.12	9.60		
SP250F075F	3/4	.13	10.05		
SP250F100F	1	.14	11.37		
SP250F125F	1-1/4	.17	13.89		
SP250F150F	1-1/2	.19	15.30		
SP310C050F	5/16-18 x 1/2	.17	13.62		
SP310C058F	5/8	.18	14.01		
SP310C075F	3/4	.18	14.64		
SP310C100F	1	.20	16.20		
SP310C125F	1-1/4	.24	19.05		
SP310C150F	1-1/2	.27	21.36		
SP310C175F	1-3/4	.29	22.98		
SP310C200F	2	.32	25.44		
SP310C225F	2-1/4	.37	29.34		
SP310C250F	2-1/2	.44	35.10		
SP310C275F*	2-3/4	.73	58.50		
SP310C300F*	3	.84	67.50		
SP310C350F*	3-1/2	1.04	83.25		
SP310C400F*	4	1.27	101.25		
SP310F050F	5/16-24 x 1/2	.18	14.19		
SP310F058F	5/8	.18	14.67		
SP310F075F	3/4	.19	15.42		
SP310F100F	1	.21	17.01		
SP310F125F	1-1/4	.25	19.98		
SP310F150F	1-1/2	.26	20.97		
SP310F175F	1-3/4	.98	78.00		
SP310F200F	2	1.07	85.20		

*Non standard – call re availability.

FLAT HEAD SOCKET CAP SCREWS					
Part No.	Size	Price Per			
		Each	100		
SP380C050F	3/8-16 x 1/2	\$.28	\$ 22.56		
SP380C058F	5/8	.29	23.13		
SP380C075F	3/4	.30	23.64		
SP380C100F	1	.30	24.39		
SP380C125F	1-1/4	.33	26.67		
SP380C150F	1-1/2	.36	29.19		
SP380C175F	1-3/4	.41	32.73		
SP380C200F	2	.48	38.73		
SP380C225F	2-1/4	.53	42.51		
SP380C250F	2-1/2	.62	49.29		
SP380C275F*	2-3/4	2.40	192.00		
SP380C300F	3	.66	53.13		
SP380C350F*	3-1/2	2.55	204.00		
SP380C400F*	4	3.98	318.00		
SP380F058F	3/8-24 x 5/8	.30	23.97		
SP380F075F	3/4	.31	24.48		
SP380F100F	1	.31	24.69		
SP380F125F	1-1/4	.34	27.27		
SP380F150F	1-1/2	.37	29.79		
SP380F175F*	1-3/4	1.76	141.00		
SP380F200F*	2	1.99	159.00		
SP380F225F*	2-1/4	2.18	174.00		
SP380F250F*	2-1/2	2.36	189.00		
SP380F275F*	2-3/4	3.08	246.00		
SP380F300F*	3	3.41	273.00		
SP380F325F*	3-1/4	4.16	333.00		
SP380F350F*	3-1/2	4.54	363.00		
SP440C075F	7/16-14 x 3/4	.52	41.43		
SP440C100F	1	.54	43.50		
SP440C125F	1-1/4	.61	48.69		
SP440C150F	1-1/2	.66	52.83		
SP440C175F	1-3/4	.73	58.53		
SP440C200F	2	.81	64.44		
SP440C225F	2-1/4	2.21	177.00		
SP440C250F	2-1/2	2.78	222.00		
SP440C300F	3	3.68	294.00		
SP440F075F	7/16-20 x 3/4	1.69	135.00		
SP440F100F	1	1.91	153.00		
SP440F125F	1-1/4	2.06	165.00		
SP440F150F	1-1/2	2.36	189.00		
SP440F200F	2	2.96	237.00		
SP500C075F	1/2-13 x 3/4	.58	46.56		
SP500C100F	1	.62	49.44		
SP500C125F	1-1/4	.73	58.05		
SP500C150F	1-1/2	.78	62.28		

SOCKET PRODUCTS -- HEAT TREATED ALLOY STEEL -- PLAIN

FLAT HEAD SOCKET CAP SCREWS				
Part No.	Size	Price Per		
		Each	100	
SP500C175F	1/2-13 x 1-3/4	\$.82	\$ 65.31	
SP500C200F	2	.88	70.17	
SP500C225F	2-1/4	.92	73.89	
SP500C250F	2-1/2	1.07	85.65	
SP500C300F	3	1.21	97.11	
SP500F075F	1/2-20 x 3/4	.63	50.43	
SP500F100F	1	.66	52.62	
SP500F125F	1-1/4	.75	59.64	
SP500F150F	1-1/2	.81	64.77	
SP500F175F	1-3/4	.85	68.13	
SP500F200F	2	.92	73.68	
SP580C125F	5/8-11 x 1-1/4	1.29	102.87	
SP580C150F	1-1/2	1.43	114.15	
SP580C175F	1-3/4	1.57	125.34	
SP580C200F	2	1.71	137.10	
SP580C225F	2-1/4	1.86	148.50	
SP580C250F	2-1/2	2.00	159.99	
SP580C300F	3	2.30	183.78	
SP750C125F	3/4-10 x 1-1/4	2.32	185.37	
SP750C150F	1-1/2	2.54	203.25	
SP750C175F	1-3/4	2.69	215.31	
SP750C200F	2	2.82	225.30	
SP750C225F	2-1/4	3.09	247.02	
SP750C250F	2-1/2	3.31	264.90	
SP750C300F	3	3.85	308.25	

SOCKET HEAD SHOULDER BOLTS				
SP250038SB	1/4 x 3/8	.91	76.53	
SP250050SB	1/2	.94	78.66	
SP250058SB	5/8	.96	80.61	
SP250075SB	3/4	.99	82.71	
SP250100SB	1	1.04	87.36	
SP250125SB	1-1/4	1.14	95.94	
SP250150SB	1-1/2	1.20	100.77	
SP310038SB	5/16 x 3/8	1.01	85.17	
SP310050SB	1/2	1.04	87.06	
SP310058SB	5/8	1.06	92.46	
SP310075SB	3/4	1.09	94.68	
SP310100SB	1	1.14	95.94	
SP310125SB	1-1/4	1.25	105.03	
SP310150SB	1-1/2	1.31	109.65	
SP310175SB	1-3/4	1.36	114.21	
SP310200SB	2	1.42	119.01	

SOCKET HEAD SHOULDER BOLTS				
Part No.	Size	Price Per		
		Each	100	
SP380038SB	3/8 x 3/8	\$ 1.17	\$ 98.34	
SP380050SB	1/2	1.19	100.29	
SP380058SB	5/8	1.22	102.12	
SP380075SB	3/4	1.25	105.03	
SP380100SB	1	1.31	109.95	
SP380125SB	1-1/4	1.39	116.37	
SP380150SB	1-1/2	1.45	121.38	
SP380175SB	1-3/4	1.53	128.43	
SP380200SB	2	1.63	137.25	
SP380225SB	2-1/4	1.74	145.74	
SP380250SB	2-1/2	2.00	167.76	
SP380275SB	2-3/4	2.20	185.19	
SP380300SB	3	2.55	214.23	
SP380325SB	3-1/4	2.67	224.19	
SP380350SB	3-1/2	3.18	267.12	
SP380375SB	3-3/4	3.33	279.39	
SP380400SB	4	3.67	308.34	
SP500050SB	1/2 x 1/2	2.27	190.95	
SP500058B	5/8	2.31	193.80	
SP500075SB	3/4	2.34	196.95	
SP500100SB	1	2.40	201.99	
SP500125SB	1-1/4	2.46	206.76	
SP500150SB	1-1/2	2.52	213.03	
SP500175SB	1-3/4	2.63	221.28	
SP500200SB	2	2.71	227.40	
SP500225SB	2-1/4	3.05	256.23	
SP500250SB	2-1/2	3.19	267.93	
SP500275SB	2-3/4	3.40	285.93	
SP500300SB	3	3.46	291.03	
SP500325SB	3-1/4	3.86	324.51	
SP500350SB	3-1/2	4.10	344.67	
SP500375SB	3-3/4	4.24	356.16	
SP500400SB	4	5.04	423.60	
SP500425SB	4-1/4	5.74	481.98	
SP500450SB	4-1/2	6.30	529.56	
SP500475SB	4-3/4	6.70	562.77	
SP500500SB	5	7.17	602.34	

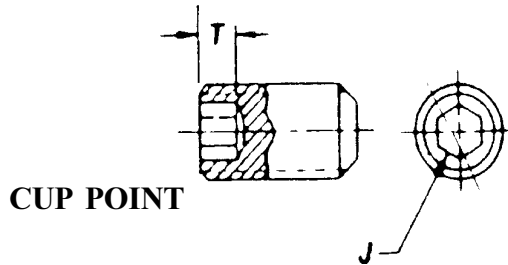
SOCKET PIPE PLUGS - 3/4" TAPER			
SP125P	1/8	.21	17.82
SP250P	1/4	.29	25.02
SP380P	3/8	.38	32.82
SP500P	1/2	.67	58.05
SP750P	3/4	1.10	95.97

CONTACT US FOR SPECIAL ORDER ITEMS AT
714 534-6882 FAX : 714 534-2255
SEND E-MAIL TO: hillco@hillcofasteners.com

-- TECHNICAL DATA --

Dimensions Of Socket Set Screws

CLASS FIT 3A
 HARDNESS RC 45-53

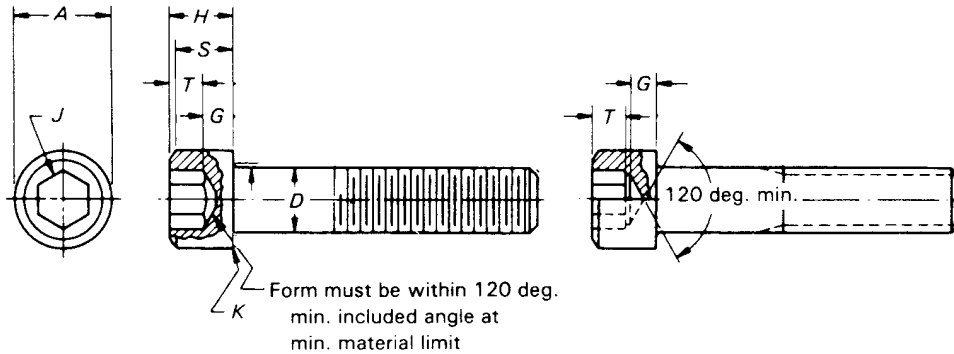


Nominal Size or Basic Screw Diameter	J		T		C		R	Y	P Q				Recommended Seating Torques (inch-lbs.)		
	Hexagon Socket Size		Min Key Engagement to Develop Functional Capability of Key		Cup and Flat Point Diameters		Oval Point Radius	Cone Point Angle 90°±2 Deg These Lengths or Longer	Half Dog Point						
			Hex Socket T_p Min					118°±2 Deg for Shorter Nominal Lengths	Diameter		Length		Alloy Steel	Stainless	Nom. Min. Screw Length
	Nom				Max	Min	Basic		Max	Min	Max	Min			
0	0.0600	0.028	0.050	0.033	0.027	0.045	0.045	0.09	0.040	0.037	0.017	0.013	1.0	.4	3/32
1	0.0730	0.028	0.060	0.040	0.033	0.055	0.055	0.09	0.049	0.045	0.021	0.017	1.8	1.2	1/8
2	0.0860	0.035	0.060	0.047	0.039	0.064	0.064	0.13	0.057	0.053	0.024	0.020	1.8	1.2	1/8
3	0.0990	0.050	0.070	0.054	0.045	0.074	0.074	0.13	0.066	0.062	0.027	0.023	5	4	5/32
4	0.1120	0.050	0.070	0.061	0.051	0.084	0.084	0.19	0.075	0.070	0.030	0.026	5	4	5/32
5	0.1250	1/16	0.080	0.067	0.057	0.094	0.094	0.19	0.083	0.078	0.033	0.027	10	7	5/32
6	0.1380	1/16	0.080	0.074	0.064	0.104	0.104	0.19	0.092	0.087	0.038	0.032	10	7	3/16
8	0.1640	5/64	0.090	0.087	0.076	0.123	0.123	0.25	0.109	0.103	0.043	0.037	20	16	3/16
10	0.1900	3/32	0.100	0.102	0.088	0.142	0.142	0.25	0.127	0.120	0.049	0.041	36	26	3/16
1/4	0.2500	1/8	0.125	0.132	0.118	0.188	0.188	0.31	0.156	0.149	0.067	0.059	87	70	5/16
5/16	0.3125	5/32	0.156	0.172	0.156	0.234	0.234	0.38	0.203	0.195	0.082	0.074	165	130	3/8
3/8	0.3750	3/16	0.188	0.212	0.194	0.281	0.281	0.44	0.250	0.241	0.099	0.089	290	230	7/16
7/16	0.4375	7/32	0.219	0.252	0.232	0.328	0.328	0.50	0.297	0.287	0.114	0.104	430	340	1/2
1/2	0.5000	1/4	0.250	0.291	0.270	0.375	0.375	0.57	0.344	0.334	0.130	0.120	620	500	9/16
5/8	0.6250	5/16	0.312	0.371	0.347	0.469	0.469	0.75	0.469	0.456	0.164	0.148	1,325	980	11/16
3/4	0.7500	3/8	0.375	0.450	0.425	0.562	0.562	0.88	0.562	0.549	0.196	0.180	2,400	1,700	3/4
7/8	0.8750	1/2	0.500	0.530	0.502	0.656	0.656	1.00	0.658	0.642	0.227	0.211	3,600	3,000	3/4
1-1/8	1.0000	9/16	0.562	0.609	0.579	0.750	0.750	1.13	0.750	0.734	0.260	0.240	5,000	4,000	7/8
1-1/8	1.1250	9/16	0.562	0.689	0.655	0.844	0.844	1.25	0.844	0.826	0.291	0.271	7,200	5,600	1
1-1/4	1.2500	5/8	0.625	0.767	0.733	0.938	0.938	1.50	0.938	0.920	0.323	0.303	9,600	7,700	1-1/8
1-3/8	1.3750	5/8	0.625	0.848	0.808	1.031	1.031	1.63	1.031	1.011	0.354	0.334	9,600	7,700	1-1/4
1-1/2	1.5000	3/4	0.750	0.926	0.886	1.125	1.125	1.75	1.125	1.105	0.385	0.365	11,320	9,100	1-1/4

For additional information refer to ASME/ANSI B18.3 1986
 All dimensions in inches

Dimensions Of Socket Head Cap Screws (1960 Series)

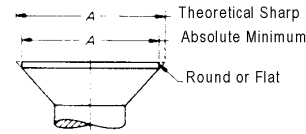
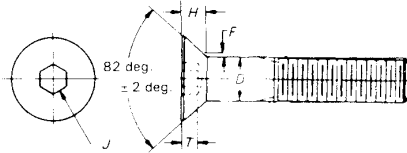
CLASS FIT 3A
 HARDNESS RC 38-43



Nominal Size or Basic Screw Diameter	D		A		H		S	J	T	G	K		
	Body Diameter		Head Diameter		Head Height		Head Side Height	Hexagon Socket Size	Key Engagement	Wall Thickness	Chamfer of Radius		
	Max.	Min.	Max.	Min.	Max.	Min.	Min.	Norm.	Min.	Min.	Max.		
0	0.0600	0.0600	0.0568	0.096	0.091	0.060	0.057	0.054		0.050	0.025	0.020	0.003
1	0.0730	0.0730	0.0504	0.118	0.112	0.073	0.070	0.066	1/16	0.062	0.031	0.025	0.003
2	0.0860	0.0860	0.0822	0.140	0.134	0.086	0.083	0.077	5/64	0.078	0.038	0.029	0.003
3	0.0990	0.0990	0.0949	0.161	0.154	0.099	0.095	0.089	5/64	0.078	0.044	0.034	0.003
4	0.1120	0.1120	0.1075	0.183	0.176	0.112	0.108	0.101	3/32	0.094	0.051	0.030	0.005
5	0.1250	0.1250	0.1202	0.205	0.198	0.125	0.121	0.112	3/32	0.094	0.057	0.043	0.005
6	0.1380	0.1380	0.1329	0.226	0.218	0.138	0.134	0.124	7/64	0.109	0.064	0.047	0.005
8	0.1640	0.1640	0.1585	0.270	0.262	0.164	0.159	0.148	9/64	0.141	0.077	0.056	0.005
10	0.1900	0.1900	0.1840	0.312	0.303	0.190	0.185	0.171	5/32	0.156	0.090	0.065	0.005
12	0.216	0.2160	0.2100	0.324	0.314	0.216	0.210	0.194	5/32	0.156	0.103	0.073	0.005
1/4	0.2500	0.2500	0.2435	0.375	0.365	0.250	0.244	0.225	3/16	0.188	0.120	0.095	0.008
5/16	0.3125	0.3125	0.3053	0.469	0.457	0.312	0.306	0.281	1/4	0.250	0.151	0.119	0.008
3/8	0.3750	0.3750	0.3678	0.561	0.550	0.375	0.368	0.337	5/16	0.312	0.182	0.143	0.008
7/16	0.4375	0.4375	0.4294	0.656	0.642	0.438	0.430	0.394	3/8	0.375	0.213	0.166	0.010
1/2	0.5000	0.5000	0.4919	0.750	0.735	0.500	0.492	0.450	3/8	0.375	0.245	0.190	0.010
5/8	0.6250	0.6250	0.6163	0.938	0.921	0.625	0.616	0.562	1/2	0.500	0.307	0.238	0.010
3/4	0.7500	0.7500	0.7406	1.125	1.107	0.750	0.740	0.675	5/8	0.625	0.370	0.285	0.010
7/8	0.8750	0.8750	0.8647	1.312	1.293	0.875	0.864	0.787	3/4	0.750	0.432	0.333	0.015
1	1.0000	1.0000	0.9886	1.500	1.479	1.000	0.988	0.900	3/4	0.750	0.495	0.380	0.015
1-1/8	1.1250	1.1250	1.1086	1.688	1.665	1.125	1.111	1.012	7/8	0.875	0.557	0.428	0.015
1-1/4	1.2500	1.2500	1.2336	1.875	1.852	1.250	1.236	1.125	7/8	0.875	0.620	0.475	0.015
1-3/8	1.3750	1.3750	1.3568	2.062	2.038	1.375	1.360	1.237	1	1.000	0.682	0.523	0.015
1-1/2	1.5000	1.5000	1.4818	2.250	2.224	1.500	1.485	1.350	1	1.000	0.745	0.570	0.015
1-3/4	1.7500	1.7500	1.7295	2.625	2.597	1.750	1.734	1.575	1-1/4	1.250	0.870	0.665	0.015
2	2.0000	2.0000	1.9780	3.000	2.970	2.000	1.983	1.800	1-1/2	1.500	0.995	0.760	0.015
2-1/4	2.2500	2.2500	2.2280	3.375	3.344	2.250	2.232	2.025	1-3/4	1.750	1.120	0.855	0.031
2-1/2	2.5000	2.5000	2.4762	3.750	3.717	2.500	2.481	2.250	1-3/4	1.750	1.245	0.950	0.031
2-3/4	2.7500	2.7500	2.7262	4.125	4.090	2.750	2.730	2.475	2-1/4	2.000	1.370	1.045	0.031
3	3.0000	3.0000	2.9762	4.500	4.464	3.000	2.979	2.700	2-1/4	2.250	1.495	1.140	0.031
3-1/4	3.2500	3.2500	3.2262	4.875	4.837	3.250	3.228	2.925	2-1/4	2.250	1.620	1.235	0.031
3-1/2	3.5000	3.5000	3.4762	5.250	5.211	3.500	3.478	3.150	2-3/4	2.750	1.745	1.330	0.031
3-3/4	3.7500	3.7500	3.7262	5.625	5.584	3.750	3.727	3.375	2-3/4	2.750	1.870	1.425	0.031
4	4.0000	4.0000	3.9762	6.000	5.958	4.000	3.976	3.600	3-1/4	3.000	1.995	1.520	0.031

Dimensions of Flat Countersunk Socket Head Cap Screws

CLASS FIT 3A
 HARDNESS RC 36-43

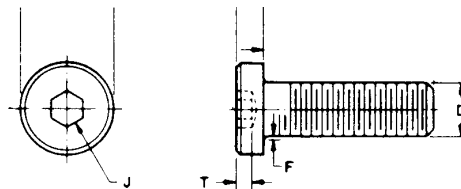


Nominal Size or Basic Screw Diameter	Basic Diameter	D		A		H		J		T	F
		Body Diameter		Head Diameter		Head Height		Hexagon Socket Size		Key Engagement	Fillet Extension Above D Max.
		Max.	Min.	Theoretical Sharp Max.	Abs. Min.	Reference	Flushness Tolerance	Nom.	Min.	Max.	
10	0.0600	0.0600	0.0568	0.138	0.117	0.044	0.006		0.035	0.025	0.006
11	0.0730	0.0730	0.0695	0.168	0.143	0.054	0.007		0.050	0.031	0.008
12	0.0860	0.0860	0.0822	0.197	0.168	0.064	0.008		0.050	0.038	0.010
13	0.0990	0.0990	0.0949	0.226	0.193	0.073	0.010	1/16	0.062	0.044	0.010
4	0.1120	0.1120	0.1075	0.255	0.218	0.083	0.011	1/16	0.062	0.055	0.012
5	0.1250	0.1250	0.1202	0.281	0.240	0.090	0.012	5/64	0.078	0.061	0.014
6	0.1380	0.1380	0.1329	0.307	0.263	0.097	0.013	5/64	0.078	0.066	0.015
8	0.1640	0.1640	0.1585	0.359	0.311	0.112	0.014	3/32	0.094	0.076	0.015
10	0.1900	0.1900	0.1840	0.411	0.359	0.127	0.015	1/8	0.125	0.087	0.015
1/4	0.2500	0.2500	0.2435	0.531	0.480	0.161	0.016	5/32	0.156	0.111	0.015
5/16	0.3125	0.3125	0.3053	0.656	0.600	0.198	0.017	3/16	0.188	0.135	0.015
3/8	0.3750	0.3750	0.3678	0.781	0.720	0.234	0.018	7/32	0.219	0.159	0.015
7/16	0.4375	0.4375	0.4294	0.844	0.781	0.234	0.018	1/4	0.250	0.159	0.015
1/2	0.5000	0.5000	0.4919	0.938	0.872	0.251	0.018	5/16	0.312	0.172	0.015
5/8	0.6250	0.6250	0.6163	1.188	1.112	0.324	0.022	3/8	0.375	0.220	0.015
3/4	0.7500	0.7500	0.7406	1.438	1.355	0.396	0.024	1/2	0.500	0.220	0.015
7/8	0.8750	0.8750	0.8647	1.688	1.604	0.468	0.025	9/16	0.562	0.248	0.015
1	1.0000	1.0000	0.9886	1.938	1.841	0.540	0.028	5/8	0.625	0.297	0.015
1-1/8	1.1250	1.1250	1.1086	2.188	2.079	0.611	0.031	3/4	0.750	0.325	0.031
1-1/4	1.2500	1.2500	1.2336	2.438	2.316	0.683	0.035	7/8	0.875	0.358	0.031
1-3/8	1.3750	1.3750	1.3568	2.688	2.553	0.755	0.038	7/8	0.875	0.402	0.031
1-1/2	1.5000	1.5000	1.4848	2.938	2.791	0.827	0.042	1	1.000	0.435	0.031

For Additional information refer to ASME/ANSI B18.3 1986 & ASTM F835

Dimensions of Low-Head Socket Cap Screws

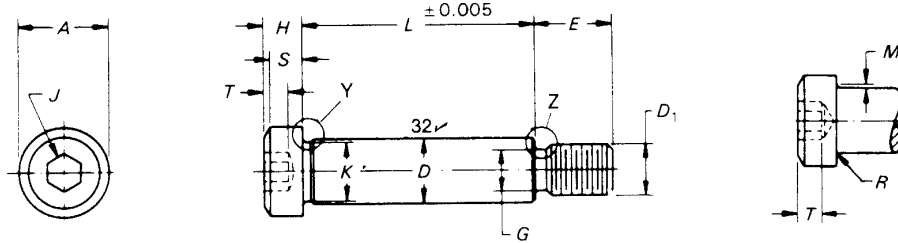
CLASS FIT 3A
 HARDNESS RC 38-43



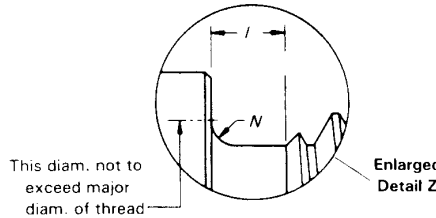
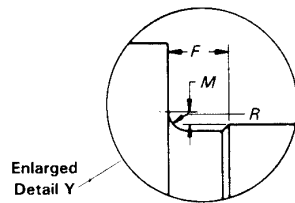
Nominal Size	Basic Screw Diam. D	A-Head Diameter		H-Head Height		J Hex Socket Size	T Key Engagement Min.	F Fillet Above D	
		Max.	Min.	Max.	Min.			Max.	Min.
4	0.1120	.183	.178	.056	.053	.0500	.038	.009	.005
5	0.1250	.205	.200	.062	.059	.0625	.044	.010	.006
6	0.1380	.226	.221	.069	.066	.0625	.050	.010	.006
8	0.1640	.270	.265	.082	.079	.0781	.060	.012	.007
10	0.1900	.312	.307	.095	.092	.093	.072	.014	.009
1/4	0.2500	.375	.369	.125	.121	.1250	.094	.014	.009
5/16	0.3125	.437	.431	.156	.152	.1562	.120	.017	.012
3/8	0.3750	.562	.556	.187	.182	.1875	.145	.020	.015
7/16	0.4375	.625	.618	.218	.213	.2188	.166	.023	.018
1/2	0.5000	.750	.743	.250	.244	.2500	.184	.026	.020
5/8	0.6250	.875	.867	.312	.306	.3125	.250	.032	.024

Dimensions of Hexagon Socket Head Shoulder Screws

CLASS FIT 3A
 HARDNESS RC 36-43

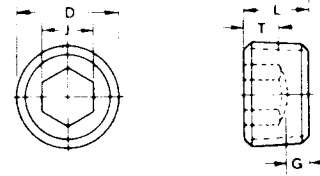


Nominal Size or Basic Shoulder Diameter	D		A		H		S	J		T	M	R
	Shoulder Diameter		Head Diameter		head Height		Head Side Height	Hexagon Socket Size		Key Engagement	Head Fillet Extension Above D	Head Fillet Radius
	Max.	Min.	Max.	Min.	Max.	Min.	Min.	Nom.	Min.	Max.	Min.	
1/4 0.250	0.2480	0.2460	0.375	0.357	0.188	0.177	0.157	1/8 0.125	0.094	0.014	0.009	
5/16 0.312	0.3105	0.3085	0.438	0.419	0.219	0.209	0.183	5/32 0.156	0.117	0.017	0.012	
3/8 0.375	0.3730	0.3710	0.562	0.543	0.250	0.240	0.209	3/16 0.188	0.141	0.020	0.015	
1/2 0.500	0.4980	0.4960	0.750	0.729	0.312	0.302	0.262	1/4 0.250	0.188	0.026	0.020	
5/8 0.625	0.6230	0.6210	0.875	0.853	0.375	0.365	0.315	5/16 0.312	0.234	0.032	0.024	
3/4 0.750	0.7480	0.7460	1.000	0.977	0.500	0.490	0.421	3/8 0.375	0.281	0.039	0.030	
1 1.000	0.9980	0.9960	1.312	1.287	0.625	0.610	0.527	1/2 0.500	0.375	0.050	0.040	
1-1/4 1.250	1.2480	1.2460	1.750	1.723	0.750	0.735	0.633	5/8 0.625	0.469	0.060	0.050	
1-1/2 1.500	1.4980	1.4960	2.125	2.095	1.000	0.980	0.842	7/8 0.875	0.656	0.070	0.060	
1-3/4 1.750	1.7480	1.7460	2.375	2.345	1.125	1.105	0.948	1 1.000	0.750	0.080	0.070	
2 2.000	1.9980	1.9960	2.750	2.720	1.250	1.230	1.054	1-1/4 1.250	0.937	0.090	0.080	



Nominal Size or Basic Shoulder Diameter	K	F	D ₁		Threads/in.	G		I	N		E
	Shoulder Neck Diameter	Shoulder Neck Width	Nominal Thread Size or Basic Thread Diameter			Thread Neck Diameter		Thread Neck Width	Thread Neck Fillet		Thread Length
	Min.	Max.			Max.	Min.	Max.	Max.	Min.	Basic	
1/4 0.250	0.227	0.093	10	0.1900	24	0.142	0.133	0.083	0.023	0.017	0.375
005/16 0.312	0.289	0.093	1/4 0.2500		20	0.193	0.182	0.100	0.028	0.022	0.438
3/8 0.375	0.352	0.093	5/16 0.3125		18	0.249	0.237	0.111	0.031	0.025	0.500
1/2 0.500	0.477	0.093	3/8 0.3750		16	0.304	0.291	0.125	0.035	0.029	0.625
5/8 0.625	0.602	0.093	1/2 0.5000		13	0.414	0.397	0.154	0.042	0.036	0.750
3/4 0.750	0.727	0.093	5/8 0.6250		11	0.521	0.502	0.182	0.051	0.045	0.875
1 1.000	0.977	0.125	3/4 0.7500		10	0.638	0.616	0.200	0.055	0.049	1.000
1-1/4 1.250	1.227	0.125	7/8 0.8750		9	0.750	0.726	0.222	0.062	0.056	1.125
01-1/2 1.500	1.478	0.125	1-1/8 1.1250		7	0.964	0.934	0.286	0.072	0.066	1.500
1-3/4 1.750	1.728	0.125	1-1/4 1.2500		7	1.089	1.059	0.286	0.072	0.066	1.750
2 2.000	1.978	0.125	1-1/2 1.5000		6	1.307	1.277	0.333	0.102	0.096	2.000

Dimensions of Hexagon Socket Dry-Seal Pressure Plugs 3/4" Taper

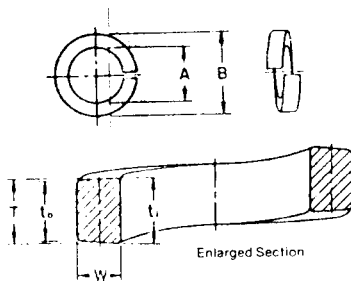


MATERIAL- ALLOY
 HARDNESS RC 36-43

Nominal Size	D Nominal O.D.	Threads Per Inch	J Hexagon Socket Size Nominal	T Key Engagement Minimum	G Wall Thickness Minimum	L Overall Length			Tightening Torque (Inch-Lbs.)
						Nominal	Maximum	Minimum	
1/16	.312	27	5/32	.140	.062	5/16	.324	.300	150
1/8	.405	27	3/16	.140	.062	5/16	.324	.300	250
1/4	.540	18	1/4	.218	.073	7/16	.457	.417	600
3/8	.675	18	5/16	.250	.084	1/2	.520	.480	1200
1/2	.840	14	3/8	.312	.095	9/16	.583	.542	1800
3/4	1.050	14	9/16	.312	.125	5/8	.645	.605	3000
1	1.315	11-1/2	5/8	.375	.125	3/4	.770	.730	4200
1-1/4	1.660	11-1/2	3/4	.437	.156	13/16	.832	.792	5400
1-1/2	1.900	11-1/2	1	.437	.156	13/16	.843	.780	6900
2	2.375	11-1/2	1	.437	.156	7/8	.906	.844	8500

For additional information refer to ANSI B1.20.3-1976

Dimensions of Hi-Collar Lock Washers



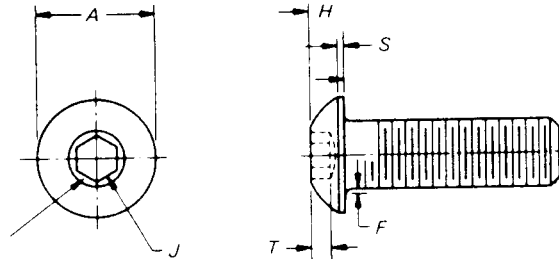
For additional information refer to
 ASME/ANSI B18.21.1 1990
 All dimensions in inches

Nominal Washer Sizes	A		B	T	W	
	Inside Diameter		Outside Diameter	Mean Section Thickness ($(T_1+T_2)/2$)	Section Width	
	Max.	Min.	Max ²	Min.	Min.	
No. 4	0.112	0.120	0.114	0.173	0.022	0.022
No. 5	0.125	0.133	0.127	0.202	0.030	0.030
No. 6	0.138	0.148	0.141	0.216	0.030	0.030
No. 8	0.164	0.174	0.167	0.267	0.047	0.042
No. 10	0.190	0.200	0.193	0.294	0.047	0.042
1/4	0.250	0.260	0.252	0.363	0.078	0.047
5/16	0.312	0.322	0.314	0.457	0.093	0.062
3/8	0.375	0.385	0.377	0.550	0.125	0.076
7/16	0.438	0.450	0.440	0.664	0.140	0.090
1/2	0.500	0.512	0.502	0.733	0.172	0.103
5/8	0.625	0.640	0.628	0.916	0.203	0.125
3/4	0.750	0.765	0.753	1.104	0.218	0.154
7/8	0.875	0.890	0.878	1.287	0.234	0.182
1	1.000	1.015	1.003	1.469	0.250	0.208
1-1/8	1.125	1.144	1.129	1.654	0.313	0.236
1-1/4	1.250	1.272	1.254	1.782	0.313	0.236
1-3/8	1.375	1.399	1.379	2.022	0.375	0.292
1-1/2	1.500	1.524	1.504	2.149	0.375	2.292
1-3/4	1.750	1.778	1.758	2.585	0.469	0.383
2	2.000	2.028	2.008	2.835	0.469	0.383

Dimensions of Button Socket Head Cap Screws

CLASS FIT 3A
HARDNESS RC 36-43

Slight flat and/or
countersink
permissible



Nominal Size or Basic Screw Diameter	A		H		S	J	T	F		
	Head Diameter		Head Height		Head Side Height	Hexagon Socket Size	Key Engagement	Fillet Extension		
	Max.	Min.	Max.	Min.	Ref.	Nom.	Min.	Max.	Min.	
0	0.0600	0.114	0.104	0.032	0.026	0.010	0.035	0.020	0.010	0.005
1	0.0730	0.139	0.129	0.039	0.033	0.010	0.050	0.028	0.010	0.050
2	0.0860	0.164	0.154	0.046	0.038	0.010	0.050	0.028	0.010	0.050
3	0.0990	0.188	0.176	0.052	0.044	0.010	1/16 0.062	0.035	0.010	0.005
4	0.1120	0.213	0.201	0.059	0.051	0.015	1/16 0.062	0.035	0.010	0.005
5	0.1250	0.238	0.226	0.066	0.058	0.015	5/64 0.078	0.044	0.010	0.005
6	0.1380	0.262	0.250	0.073	0.063	0.015	5/64 0.078	0.044	0.010	0.005
8	0.1640	0.312	0.298	0.087	0.077	0.015	3/32 0.094	0.052	0.015	0.010
10	0.1900	0.361	0.347	0.101	0.091	0.020	1/8 0.125	0.070	0.015	0.010
1/4	0.2500	0.437	0.419	0.132	0.122	0.031	5/32 0.156	0.087	0.020	0.015
5/16	0.3125	0.547	0.527	0.166	0.152	0.031	3/16 0.188	0.105	0.020	0.015
3/8	0.3750	0.656	0.636	0.199	0.185	0.031	7/32 0.219	0.122	0.020	0.015
1/2	0.5000	0.875	0.851	0.265	0.245	0.046	5/16 0.312	0.175	0.030	0.020
5/8	0.6250	1.000	0.970	0.331	0.311	0.062	3/8 0.375	0.210	0.030	0.020

For Additional information refer to
ASME/ANSI B18.3 1986 &
ASTM F835

VISIT OUR WEBSITE: www.hillcofasteners.com
ALL ITEMS IN THIS SECTION ARE PLAIN UNPLATED.
FOR PLATED SOCKET PRODUCTS, CONTACT US
FOR PRICE AND AVAILABILITY.

**Suggested Tightening Torques for Alloy
1960 Inch Series Socket Head Cap Screws**

NOMINAL SIZE	BASIC SCREW DIAMETER INCHES	TORQUE TO TIGHTEN SCREWS TO YIELD (In-lb)		TIGHTENING TORQUE* (In-lb)	
		UNRC	UNRF	UNRC	UNRF
0	0.0600	----	3.5	----	2.6
1	0.0730	6	6.5	4.5	4.8
2	0.0860	10	11	7.5	8
3	0.0990	15	16	11	12
4	0.1120	22	24	16	18
5	0.1250	32	33	24	24
6	0.1380	40	45	30	34
8	0.1640	74	78	55	58
10	0.1900	105	120	79	90
		(ft-lb)		(ft-lb)	
1/4	0.2500	22	25	17	19
5/16	0.3125	46	51	35	38
3/8	0.3750	83	93	62	70
7/16	0.4375	132	146	100	109
1/2	0.5000	203	230	150	172
5/8	0.6250	380	430	283	317
3/4	0.7500	667	750	500	562
7/8	0.8750	917	1020	688	767
1	1.0000	1390	1520	1040	1080
1-1/4	1.2500	2780	3080	2080	2310
1-1/2	1.5000	4850	5450	3625	4080

Nominal Sizes	Tensile Strength P.S.I. Min.	Yield Strength P.S.I. Min.	Elongation* In 2 Inches Per Cent Min.	Reduction Of Area* Per Cent Min.	Minimum Hardness Rockwell C
0 to 1/2	180,000	162,000	12	35	39
Over 1/2	170,000	153,000	14	40	38

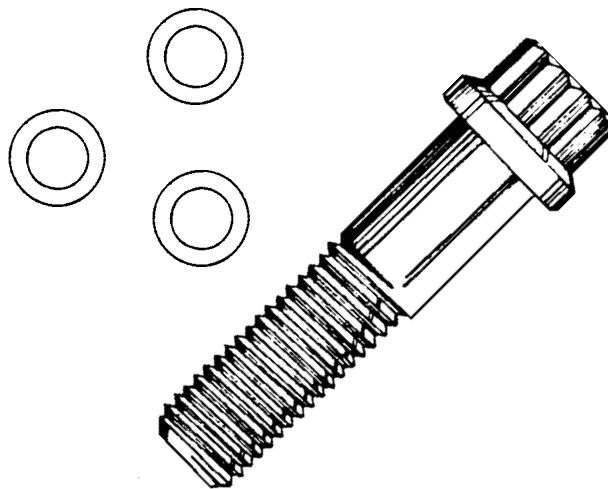
*Listed tightening torques are 75% of the torque to yield based on ASTM574. Specification listing tensile strength of 180,000 PSI for screws 0.500 and smaller and 170,000 PSI for screws 0.625 and larger. Values based on plated and non-lubricated fasteners.

Tightening torques are only recommended for proper applications. Refer to your engineering stats.

**ALLOY STEEL
12-POINT FLANGE SCREWS**

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ALLOY STEEL 12 POINT FLANGE SCREWS

12-POINT FLANGE SCREWS					12-POINT FLANGE SCREWS				
Part No.	Size	Price Per			Part No.	Size	Price Per		
		Each	100	Each			100		
DB250C050	1/4-20 x	1/2	\$.19	\$ 16.23	DB310F075	5/16-24 x	3/4	\$.29	\$ 23.86
DB250C058		5/8	.20	16.43	DB310F078		7/8	.31	25.96
DB250C075		3/4	.20	16.64	DB310F100		1	.34	28.05
DB250C078		7/8	.20	16.84	DB310F125		1-1/4	.40	33.62
DB250C100		1	.21	17.09	DB310F150		1-1/2	.47	39.44
DB250C125		1-1/4	.24	20.25	DB310F175		1-3/4	.54	44.62
DB250C150		1-1/2	.29	23.93	DB310F200		2	.60	49.89
DB250C175		1-3/4	.32	26.68	DB310F225		2-1/4	.67	56.03
DB250C200		2	.36	30.18	DB310F250		2-1/2	.75	62.22
DB250C225		2-1/4	.41	34.14	DB310F275		2-3/4	.82	68.38
DB250C250		2-1/2	.48	40.40	DB310F300		3	.89	74.53
DB250C275		2-3/4	.54	44.59	DB310F325		3-1/4	.96	79.65
DB250C300		3	.56	46.79	DB310F350		3-1/2	.96	80.34
					DB310F400		4	1.19	99.18
DB250F050	1/4-28 x	1/2	.20	17.04	DB380C058	3/8-16 x	5/8	.48	40.29
DB250F058		5/8	.21	17.24	DB380C075		3/4	.49	40.49
DB250F075		3/4	.21	17.46	DB380C078		7/8	.49	40.70
DB250F078		7/8	.21	17.68	DB380C100		1	.49	40.91
DB250F100		1	.22	17.94	DB380C125		1-1/4	.52	43.24
DB250F125		1-1/4	.25	21.24	DB380C150		1-1/2	.55	45.86
DB250F150		1-1/2	.30	25.14	DB380C175		1-3/4	.60	50.30
DB250F175		1-3/4	.34	28.02	DB380C200		2	.71	59.19
DB250F200		2	.38	31.69	DB380C225		2-1/4	.81	67.79
DB250F225		2-1/4	.43	35.86	DB380C250		2-1/2	.87	72.60
DB250F250		2-1/2	.51	42.42	DB380C275		2-3/4	1.04	86.90
DB250F275		2-3/4	.54	44.69	DB380C300		3	1.14	94.74
DB250F300		3	.59	49.13	DB380C325		3-1/4	1.27	105.81
					DB380C350		3-1/2	1.36	112.96
DB310C050	5/16-18 x	1/2	.27	22.14	DB380C400		4	1.54	128.63
DB310C058		5/8	.27	22.55	DB380C450		4-1/2	1.73	144.42
DB310C075		3/4	.27	22.73	DB380C500		5	1.92	160.19
DB310C078		7/8	.30	24.72					
DB310C100		1	.32	26.72	DB380F058	3/8-24 x	5/8	.51	42.30
DB310C125		1-1/4	.38	32.01	DB380F075		3/4	.51	42.52
DB310C150		1-1/2	.45	37.54	DB380F078		7/8	.51	42.74
DB310C175		1-3/4	.51	42.49	DB380F100		1	.52	42.97
DB310C200		2	.57	47.51	DB380F125		1-1/4	.54	45.42
DB310C225		2-1/4	.64	53.35	DB380F150		1-1/2	.58	48.17
DB310C250		2-1/2	.71	59.26	DB380F175		1-3/4	.63	52.80
DB310C275		2-3/4	.78	65.11	DB380F200		2	.75	62.15
DB310C300		3	.85	70.99	DB380F225		2-1/4	.85	71.20
DB310C325		3-1/4	.91	75.87	DB380F250		2-1/2	.91	76.24
DB310C350		3-1/2	1.00	83.74	DB380F275		2-3/4	1.09	91.23
DB310C400		4	1.13	94.46	DB380F300		3	1.19	99.48
					DB380F325		3-1/4	1.33	111.10
DB310F050	5/16-24 x	1/2	.28	23.24	DB380F350		3-1/2	1.42	118.59
DB310F058		5/8	.28	23.68					

ALLOY STEEL 12 POINT FLANGE SCREWS

12-POINT FLANGE SCREWS				
Part No.	Size	Price Per		
		Each	100	
DB380F400	3/8-24 x 4	\$ 1.62	\$135.07	
DB380F450	4-1/2	1.82	151.64	
DB380F500	5	2.02	168.20	
DB440C075	7/16-14 x 3/4	.96	80.16	
DB440C078	7/8	.97	80.44	
DB440C100	1	.97	80.71	
DB440C125	1-1/4	.97	81.24	
DB440C150	1-1/2	1.02	84.84	
DB440C175	1-3/4	1.05	87.84	
DB440C200	2	1.17	97.14	
DB440C225	2-1/4	1.30	108.63	
DB440C250	2-1/2	1.36	113.44	
DB440C275	2-3/4	1.42	118.11	
DB440C300	3	1.52	126.40	
DB440C325	3-1/4	1.68	139.91	
DB440C350	3-1/2	1.81	150.60	
DB440C400	4	1.97	164.15	
DB440F075	7/16-20 x 3/4	1.01	84.18	
DB440F078	7/8	1.01	84.45	
DB440F100	1	1.02	84.76	
DB440F125	1-1/4	1.02	85.29	
DB440F150	1-1/2	1.07	89.07	
DB440F175	1-3/4	1.11	92.24	
DB440F200	2	1.22	102.00	
DB440F225	2-1/4	1.37	114.06	
DB440F250	2-1/2	1.43	119.12	
DB440F275	2-3/4	1.49	124.03	
DB440F300	3	1.59	132.73	
DB440F325	3-1/4	1.76	146.92	
DB440F350	3-1/2	1.90	158.13	
DB440F400	4	2.07	172.36	
DB500C058	1/2-13 x 5/8	1.05	87.31	
DB500C075	3/4	1.06	88.00	
DB500C078	7/8	1.07	89.03	
DB500C100	1	1.08	89.72	
DB500C125	1-1/4	1.08	90.34	
DB500C150	1-1/2	1.23	102.64	
DB500C175	1-3/4	1.29	107.11	
DB500C200	2	1.37	114.26	
DB500C225	2-1/4	1.44	120.31	
DB500C250	2-1/2	1.58	131.38	
DB500C275	2-3/4	1.71	142.63	
DB500C300	3	1.76	146.85	
DB500C325	3-1/4	1.92	160.05	
DB500C350	3-1/2	2.05	170.95	
DB500C400	4	2.35	195.59	
DB500C450	4-1/2	2.61	217.66	

12-POINT FLANGE SCREWS				
Part No.	Size	Price Per		
		Each	100	
DB500C500	1/2-13 x 5	\$ 2.88	\$239.77	
DB500C550	5-1/2	3.14	261.91	
DB500C600	6	3.95	329.42	
DB500C650	6-1/2	4.26	355.03	
DB500C700	7	4.56	380.33	
DB500C750	7-1/2	5.22	435.19	
DB500C800	8	5.40	449.63	
DB500F058	1/2-20 x 5/8	1.10	91.69	
DB500F075	3/4	1.11	92.40	
DB500F078	7/8	1.12	93.49	
DB500F100	1	1.13	94.20	
DB500F125	1-1/4	1.14	94.85	
DB500F150	1-1/2	1.29	107.77	
DB500F175	1-3/4	1.35	112.48	
DB500F200	2	1.44	119.97	
DB500F225	2-1/4	1.52	126.34	
DB500F250	2-1/2	1.66	137.95	
DB500F275	2-3/4	1.80	149.74	
DB500F300	3	1.85	154.21	
DB500F325	3-1/4	2.02	168.07	
DB500F350	3-1/2	2.15	179.51	
DB500F400	4	2.46	205.40	
DB500F450	4-1/2	2.74	228.57	
DB500F500	5	3.02	251.76	
DB500F550	5-1/2	3.30	275.00	
DB500F600	6	4.15	345.88	
DB500F650	6-1/2	4.47	372.76	
DB500F700	7	4.79	399.34	
DB500F750	7-1/2	5.48	456.94	
DB500F800	8	5.67	472.11	
DB580C100	5/8-11 x 1	1.82	151.94	
DB580C125	1-1/4	1.85	153.86	
DB580C150	1-1/2	1.87	155.44	
DB580C175	1-3/4	1.93	160.99	
DB580C200	2	2.00	166.69	
DB580C225	2-1/4	2.23	185.56	
DB580C250	2-1/2	2.42	201.41	
DB580C275	2-3/4	2.61	217.29	
DB580C300	3	2.80	233.20	
DB580C325	3-1/4	3.02	252.01	
DB580C350	3-1/2	3.22	268.10	
DB580C400	4	3.67	305.59	
DB580C450	4-1/2	4.67	388.99	
DB580C500	5	4.96	413.46	
DB580C550	5-1/2	5.38	448.18	
DB580C600	6	5.88	489.89	
DB580C650	6-1/2	6.24	519.75	
DB580C700	7	6.67	556.19	

ALLOY STEEL 12 POINT FLANGE SCREWS

12-POINT FLANGE SCREWS				
Part No.	Size	Price Per		
		Each	100	
DB580C750	5/8-11 x 7-1/2	\$ 6.90	\$574.75	
DB580C800	8	7.16	596.27	
DB580F100	5/8-18 x 1	1.92	159.64	
DB580F125	1-1/4	1.94	161.56	
DB580F150	1-1/2	1.96	163.21	
DB580F175	1-3/4	2.03	169.03	
DB580F200	2	2.10	175.01	
DB580F225	2-1/4	2.34	194.84	
DB580F250	2-1/2	2.54	211.48	
DB580F275	2-3/4	2.74	228.15	
DB580F300	3	2.94	244.86	
DB580F325	3-1/4	3.18	264.62	
DB580F350	3-1/2	3.38	281.50	
DB580F400	4	3.85	320.90	
DB580F450	4-1/2	4.90	408.44	
DB580F500	5	5.21	434.27	
DB580F550	5-1/2	5.65	470.59	
DB580F600	6	6.17	514.39	
DB580F650	6-1/2	6.55	545.74	
DB580F700	7	7.01	584.00	
DB580F750	7-1/2	7.24	603.49	
DB580F800	8	7.51	626.04	
DB750C125	3/4-10 x 1-1/4	3.24	270.19	
DB750C150	1-1/2	3.28	273.14	
DB750C175	1-3/4	3.52	293.01	
DB750C200	2	3.70	308.41	
DB750C225	2-1/4	3.88	323.44	
DB750C250	2-1/2	4.01	334.26	
DB750C275	2-3/4	4.32	360.04	
DB750C300	3	4.63	385.83	
DB750C325	3-1/4	4.94	411.65	
DB750C350	3-1/2	5.25	437.43	
DB750C400	4	5.40	450.29	
DB750C450	4-1/2	5.98	498.00	
DB750C500	5	6.35	529.21	
DB750C550	5-1/2	6.73	560.42	
DB750C600	6	7.60	633.60	
DB750C650	6-1/2	8.40	700.29	
DB750C700	7	11.28	939.65	
DB750F125	3/4-16 x 1-1/4	3.40	283.66	
DB750F150	1-1/2	3.44	286.80	
DB750F175	1-3/4	3.69	307.66	
DB750F200	2	3.89	323.85	

12-POINT FLANGE SCREWS				
Part No.	Size	Price Per		
		Each	100	
DB750F225	3/4-16 x 2-1/4	\$ 4.08	\$339.60	
DB750F250	2-1/2	4.21	350.97	
DB750F275	2-3/4	4.54	378.06	
DB750F300	3	4.86	405.12	
DB750F325	3-1/4	5.19	432.23	
DB750F350	3-1/2	5.51	459.29	
DB750F400	4	5.67	472.79	
DB750F450	4-1/2	6.27	522.89	
DB750F500	5	6.67	555.68	
DB750F550	5-1/2	7.06	588.43	
DB750F600	6	7.98	665.29	
DB750F650	6-1/2	8.82	735.32	
DB750F700	7	11.84	986.63	

AN960 FLAT WASHERS – YELLOW ZINC

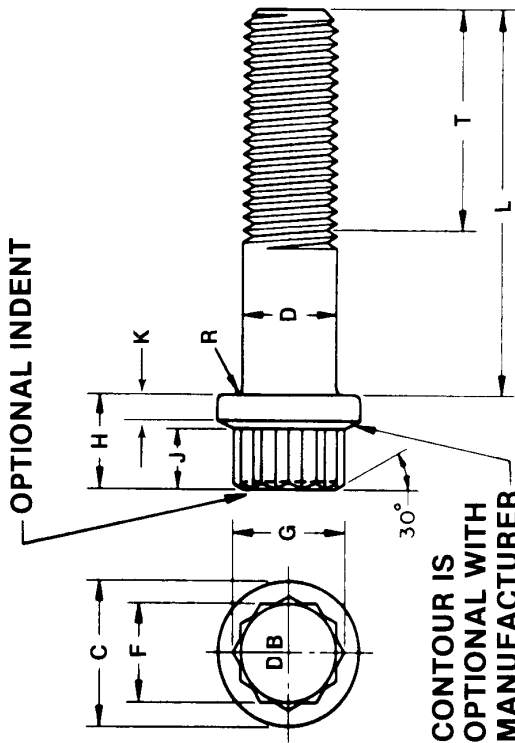
AN960416	1/4	.06	4.25
AN960516	5/16	.08	6.25
AN960616	3/8	.09	6.50
AN960716	7/16	.13	9.80
AN960816	1/2	.14	10.50
AN960916	9/16	.20	15.00
AN9601016	5/8	.26	19.00
AN9601216	3/4	.32	24.00

THIN AN960 FLAT WASHERS – YELLOW ZINC

AN960416L	1/4	.06	4.25
AN960516L	5/16	.08	6.25
AN960616L	3/8	.09	6.50
AN960716L	7/16	.13	9.80
AN960816L	1/2	.14	10.50
AN960916L	9/16	.20	15.00
AN9601016L	5/8	.26	19.00
AN9601216L	3/4	.32	24.00

12-Point Flange Screws in this section are not plated and are black in color. We are now in the process of having the more popular sizes, i.e. 1/4, 5/16 and 3/8, plated yellow zinc, bright zinc chromate and baked. Please call for price and available sizes. Remember, these bolts will not be certifiable once they have been altered by plating.

ALLOY STEEL
12 POINT FLANGE SCREWS

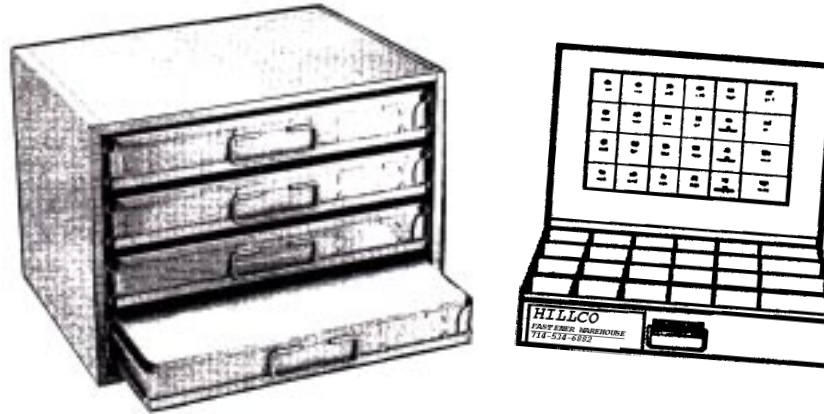


**CONTOUR IS
 OPTIONAL WITH
 MANUFACTURER**

MATERIAL: Alloy Steel
HARDNESS: 37-43 RC
TENSILE STRENGTH: 170,000 P.S.I. Min.
YIELD STRENGTH: 153,000 P.S.I. Min.
PROOF LOAD: 140,000 P.S.I. Min.
THREADS: screw size 1/4 through 1 inch
 UNRC/UNRF Class 3A
 screw size 1 1/8 through 1 1/2 inch
 UNRC/UNRF Class 2A
HEADMARK: screw size 1/4 and 5/16 "D" or "DB"
 3/8 and above "DB"

NOMINAL PRODUCT DIAMETER	D BODY DIAMETER		C FLANGE DIAMETER		F WIDTH ACROSS FLATS		G WIDTH ACROSS CORNERS		SOCKET WRENCH SIZE	H HEAD HEIGHT	K FLANGE THICKNESS		J WRENCHING HEIGHT		R RADIUS		T THREAD LENGTH	
	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.			MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.
1/4	0.2500	0.2435	0.375	0.365	0.252	0.244	0.278	0.278	1/4	0.250	0.058	0.15	0.014	0.009	0.014	0.009	1.000	1.000
5/16	0.3125	0.3053	0.469	0.457	0.315	0.306	0.348	0.348	5/16	0.312	0.074	0.18	0.017	0.012	0.017	0.012	1.125	1.125
3/8	0.3750	0.3678	0.562	0.550	0.377	0.368	0.420	0.420	3/8	0.375	0.095	0.21	0.020	0.015	0.020	0.015	1.250	1.250
7/16	0.4375	0.4294	0.656	0.642	0.438	0.429	0.489	0.489	7/16	0.438	0.109	0.26	0.023	0.018	0.023	0.018	1.375	1.375
1/2	0.5000	0.4919	0.750	0.735	0.502	0.493	0.562	0.562	1/2	0.500	0.129	0.29	0.026	0.020	0.026	0.020	1.500	1.500
5/8	0.6250	0.6163	0.938	0.921	0.627	0.618	0.705	0.705	5/8	0.625	0.166	0.36	0.032	0.024	0.032	0.024	1.750	1.750
3/4	0.7500	0.7406	1.125	1.107	0.752	0.743	0.847	0.847	3/4	0.750	0.200	0.44	0.039	0.030	0.039	0.030	2.000	2.000
7/8	0.8750	0.8647	1.312	1.293	0.877	0.866	0.987	0.987	7/8	0.875	0.234	0.51	0.044	0.034	0.044	0.034	2.250	2.250
1	1.0000	0.9886	1.500	1.479	1.003	0.991	1.130	1.130	1	1.000	0.268	0.60	0.050	0.040	0.050	0.040	2.500	2.500
1 1/8	1.1250	1.1086	1.688	1.665	1.128	1.115	1.271	1.271	1 1/8	1.125	0.310	0.66	0.055	0.045	0.055	0.045	2.750	2.750
1 1/4	1.2500	1.2336	1.875	1.852	1.253	1.240	1.414	1.414	1 1/4	1.250	0.350	0.73	0.060	0.050	0.060	0.050	3.000	3.000
1 1/2	1.5000	1.4818	2.250	2.224	1.503	1.489	1.697	1.697	1 1/2	1.500	0.433	0.87	0.070	0.060	0.070	0.060	3.500	3.500

HILCO SHOP STARTER ASSORTMENTS



A048L -- \$279.95 (Grade 5)

Four assortments in a 4-drawer slide rack

1/4-20 – 5/16-18 – 3/8-16 Grade 5 Assortment

7/16-14 – 1/2-13 Grade 5 Assortment

Electrical Terminal Assortment

Pan Head Phillips Sheet Metal Screw Assortment

A088L -- \$299.95 (Grade 8)

Four assortments in a 4-drawer slide rack

1/4-20 – 5/16-18 – 3/8-16 Grade 8 Assortment

7/16-14 – 1/2-13 Grade 8 Assortment

Electrical Terminal Assortment

Pan Head Phillips Sheet Metal Screw Assortment

Hillco has many varieties of assortments available. The combinations above are examples of our fastest moving items. We will build assortments to suit your specific requirements. Call and let us help! 714 534-6882 Fax: 714 534-2255, or e-mail hillco@hillcofasteners.com. with your specifications.