

SOCKET HEAD CAP SCREW

UNC

STAINLESS STEEL



APPLICATION

Bremick® Socket head cap screws are used in a variety of applications. They provide strong clamping force and can be used in applications with limited space

PRODUCT ATTRIBUTES

Material Class: 316 STAINLESS STEEL 2-CW-F837E

Thread Form: Class 3A UNRC ≤ 1”
Class 2A UNRC 1” < x ≤ 1-1/2”

Standard: Complies to ASME B18.3:2012

Mechanical Properties: Complies to ASTM F837:2020

Chemical Composition: Complies to ASTM F837:2020

MECHANICAL PROPERTIES

ALLOY MECHANICAL PROPERTY MARKING	TENSILE STRENGTH (ksi)	EXTENSION	HARDNESS	
			VICKERS (HV)	ROCKWELL (HRA)
	MIN	MIN	MIN	MIN
F837E	80	0.4D	150	50

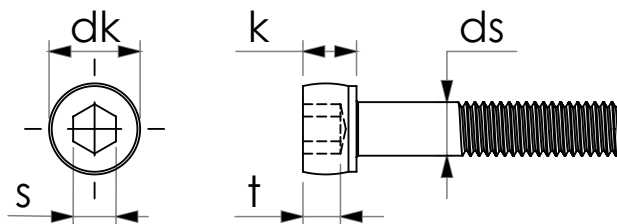
CHEMICAL COMPOSITION (%)

STAINLESS STEEL GRADE	C	Mn	P	S	Si	Ni	Cr
	MAX	MAX	MAX	MAX	MAX	RANGE	RANGE
316	0.08	2.00	0.045	0.030	1.00	10.0-14.0	16.0-18.0

MATERIAL INFORMATION

STAINLESS STEEL 316		
DESCRIPTION	OVERVIEW	CORROSION RESISTANCE
316 is a Marine Grade SS – It contains 2-3% Molybdenum which provides highest possible corrosion protection than 304 Stainless steel.	Bremick® 316 Stainless Steel provides the ultimate level of protection and is recommended for external application and marine environments.	Ultimate

DIMENSIONAL DATA (inches)



DIAMETER	TPI	BODY DIAMETER (ds)		HEAD DIAMETER (dk)		HEAD HEIGHT (k)		HEXAGON SOCKET SIZE (s)	KEY ENGAGEMENT (t)
		MIN	MAX	MIN	MAX	MIN	MAX	NOMINAL	MIN
6#	32	0.1329	0.1380	0.216	0.226	0.134	0.138	0.109	0.064
8#	32	0.1585	0.1640	0.257	0.270	0.159	0.164	0.141	0.077
10#	24	0.1840	0.1900	0.278	0.312	0.185	0.190	0.156	0.090
1/4	20	0.2435	0.2500	0.354	0.375	0.244	0.250	0.188	0.120
5/16	18	0.3053	0.3125	0.446	0.469	0.306	0.312	0.250	0.151
3/8	16	0.3678	0.3750	0.550	0.562	0.368	0.375	0.312	0.182
7/16	14	0.4294	0.4375	0.631	0.656	0.430	0.438	0.375	0.213
1/2	13	0.4919	0.5000	0.725	0.750	0.492	0.500	0.375	0.245
5/8	11	0.6163	0.6250	0.914	0.938	0.616	0.625	0.500	0.307
3/4	10	0.7406	0.7500	1.094	1.125	0.740	0.750	0.625	0.370
7/8	9	0.8647	0.8750	1.291	1.312	0.864	0.875	0.750	0.432
1	8	0.9886	1.0000	1.476	1.500	0.988	1.000	0.750	0.495
1-1/8	7	1.1086	1.1250	1.665	1.688	1.111	1.125	0.875	0.557
1-1/4	7	1.2336	1.2500	1.852	1.875	1.236	1.250	0.875	0.620
1-3/8	6	1.3568	1.3750	2.038	2.062	1.360	1.375	1.000	0.682
1-1/2	6	1.4818	1.5000	2.224	2.250	1.485	1.500	1.000	0.745

SOCKET OR SPANNER SIZE (inches)

SCREW DIAMETER	6#	8#	10#	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	1-1/8	1-1/4	1-3/8	1-1/2
SOCKET SIZE	7/64	9/64	5/32	3/16	1/4	5/16	3/8	3/8	1/2	5/8	3/4	3/4	7/8	7/8	1	1

THREAD LENGTH (inches)

NOMINAL LENGTH	6#	8#	10#	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1
0.88												
1												
1.25	0.75	0.87	0.87									
1.5	1	1.12	1.12	1								
1.75	0.75	0.87	0.87	1.25	1.13	1.25						
2	1	1.12	1.12	1	1.38	1.5	1.38					
2.25	0.75	0.87	0.87	1.25	1.13	1.25	1.63	1.5				
2.5	1	1.12	1.12	1	1.38	1.5	1.38	1.75	109			
2.75	0.75	0.87	0.87	1.25	1.13	1.25	1.63	2	2			
3	-	1.12	1.12	1	1.38	1.5	1.38	1.5	2.25			
3.25	-	0.87	0.87	1.25	1.13	1.25	1.63	1.75	1.75	2.25	2.25	
3.5	-	-	1.12	1	1.38	1.5	1.38	2	2	2.5	2.5	2.5
3.75	-	-	0.87	1.25	1.13	1.25	1.63	1.5	2.25	2.75	2.75	2.75
4	-	-	1.12	1	1.38	1.5	1.38	1.75	1.75	2	3	3
4.25	-	-	-	1.25	1.13	1.25	1.63	2	2	2.25	2.25	3.25
4.5	-	-	-	1	1.38	1.5	1.38	1.5	2.25	2.5	2.5	2.5
4.75	-	-	-	1.25	1.13	1.25	1.63	1.75	1.75	2.75	2.75	2.75
5	-	-	-	1	1.38	1.5	1.38	2	2	2	3	3
5.25	-	-	-	-	1.13	1.25	1.63	1.5	2.25	2.25	2.25	3.25
5.5	-	-	-	-	1.38	1.5	1.38	1.75	1.75	2.5	2.5	2.5
5.75	-	-	-	-	1.13	1.25	1.63	2	2	2.75	2.75	2.75
6	-	-	-	-	1.38	1.5	1.38	1.5	2.25	2	3	3
6.25	-	-	-	-	1.13	1.25	1.63	1.75	1.75	2.25	2.25	3.25
6.5	-	-	-	-	-	1.5	1.38	2	2	2.5	2.5	2.5
6.75	-	-	-	-	-	1.25	1.63	1.5	2.25	2.75	2.75	2.75
7	-	-	-	-	-	1.5	1.38	1.75	1.75	2	3	3
7.25	-	-	-	-	-	1.25	1.63	2	2	2.25	2.25	3.25
7.5	-	-	-	-	-	1.5	1.38	1.5	2.25	2.5	2.5	2.5
7.75	-	-	-	-	-	-	1.63	1.75	1.75	2.75	2.75	2.75
8	-	-	-	-	-	-	1.38	2	2.25	2	3	3
8.5	-	-	-	-	-	-	1.38	1.5	1.75	2.5	2.5	2.5
9	-	-	-	-	-	-	1.38	2	2.25	2	3	3
9.5	-	-	-	-	-	-	-	1.5	1.75	2.5	2.5	2.5
10	-	-	-	-	-	-	-	2	2.25	2	3	3
11	-	-	-	-	-	-	-	-	1.75	2	3	3
12	-	-	-	-	-	-	-	-	1.75	2	3	3
13	-	-	-	-	-	-	-	-	-	2	3	3
14	-	-	-	-	-	-	-	-	-	2	3	3
15	-	-	-	-	-	-	-	-	-	2	3	3
16	-	-	-	-	-	-	-	-	-	-	3	3
17	-	-	-	-	-	-	-	-	-	-	3	3
18	-	-	-	-	-	-	-	-	-	-	3	3
19	-	-	-	-	-	-	-	-	-	-	-	3
20	-	-	-	-	-	-	-	-	-	-	-	3

**ALL SIZES ABOVE THE STEPPED LINE
ARE FULLY THREADED**

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