

SOCKET COUNTERSUNK
FLAT HEAD CAP SCREWS
UNF



PLAIN

APPLICATION

Bremick® Flat Head (Counter Sunk) Socket Screws are high strength fasteners manufactured to precision tolerances for use in applications where close tolerances and high tensile strength is required. The heads of these fasteners are flat topped, counter sunk with an internal hex drive recess

PRODUCT ATTRIBUTES

Material Class:	Alloy Steel ASTM F835
Thread Form:	Class 3A UNRF $\leq 1"$ Class 2A UNRF $1" < x \leq 1\text{-}1/2"$
Finish:	Plain/Black/Natural
Standard:	Complies to ASME B18.3:2012
Mechanical Properties:	Complies to ASTM F835:2023
Chemical Composition:	Complies to ASTM F835:2023

HEAD MARKING

Manufacturer Mark

In some cases, the Bremick head mark will be replaced by the mark of the original manufacturer

MECHANICAL PROPERTIES (Full-Size Tests)

DIAMETER (inches)	TENSILE STRENGTH (ksi)	HARDNESS			
		ROCKWELL (HRC)		VICKERS (DPH)	
NOMINAL	MIN	MIN	MAX	MIN	MAX
$\leq 0.5"$	144	39	44	382	434
$> 0.5"$	136	37	44	363	434

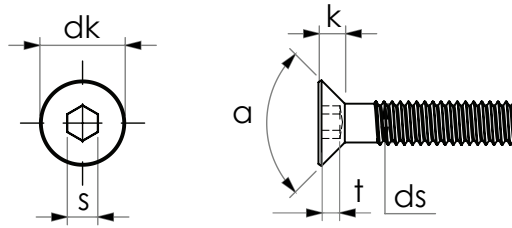
CHEMICAL COMPOSITION (%)

ANALYSIS	C		P	S
	MIN	MAX	MAX	MAX
HEAT	0.30	0.48	0.035	0.040
PRODUCT	0.28	0.50	0.040	0.045

FINISH INFORMATION

PLAIN / BLACK / NATURAL		
DESCRIPTION	OVERVIEW	CORROSION RESISTANCE
Plain, Black & Natural are all terms referring to the fastener not having a coating applied. The product has a light oil added.	Plain or uncoated fasteners offer no corrosion protection they are supplied lightly oiled to inhibit the rust process prior to installation and help during installation.	—

DIMENSIONAL DATA (inches)



DIAMETER	TPI	BODY DIAMETER (ds)		HEAD DIAMETER (dk)		HEAD HEIGHT (k)	HEXAGON SOCKET SIZE (s)	KEY ENGAGEMENT (t)	COUNTERSUNK ANGLE (a)	
		MIN	MAX	MIN	MAX	REFERENCE	NOMINAL	MIN	MIN	MAX
10#	32	0.1840	0.1900	0.359	0.411	0.127	0.125	0.087	80°	84°
1/4	28	0.2435	0.2500	0.480	0.531	0.161	0.156	0.111	80°	84°
5/16	24	0.3053	0.3125	0.600	0.656	0.198	0.188	0.135	80°	84°
3/8	24	0.3678	0.3750	0.720	0.781	0.234	0.219	0.159	80°	84°
7/16	20	0.4294	0.4375	0.781	0.844	0.234	0.250	0.159	80°	84°
1/2	20	0.4919	0.5000	0.872	0.938	0.251	0.312	0.172	80°	84°
5/8	18	0.6163	0.6250	1.112	1.188	0.324	0.375	0.220	80°	84°
3/4	16	0.7406	0.7500	1.355	1.438	0.396	0.500	0.220	80°	84°
7/8	14	0.8647	0.8750	1.604	1.688	0.468	0.562	0.248	80°	84°
1	12	0.9886	1.0000	1.841	1.938	0.540	0.625	0.297	80°	84°
1-1/8	12	1.1086	1.1250	2.079	2.188	0.611	0.750	0.325	80°	84°
1-1/4	12	1.2336	1.2500	2.316	2.438	0.683	0.875	0.358	80°	84°
1-3/8	12	1.3568	1.3750	2.553	2.688	0.755	0.875	0.402	80°	84°
1-1/2	12	1.4818	1.5000	2.791	2.938	0.827	1.000	0.435	80°	84°

Head Height: Tabulated values for head height are given for reference only and are calculated to the maximum formulation

SOCKET OR SPANNER SIZE (inches)

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

THREAD LENGTH (inches)

NOMINAL LENGTH	10#	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	1
0.88											
1											
1.25											
1.5	0.88										
1.75	1.13	1									
2	0.88	1.25	1.12								
2.25	1.13	1	1.37	1.25							
2.5	0.88	1.25	1.12	1.5	1.38	1.5					
2.75	1.13	1	1.37	1.25	1.63	1.75					
3	0.88	1.25	1.12	1.5	1.38	2					
3.25	1.13	1	1.37	1.25	1.63	1.5	1.75				
3.5	0.88	1.25	1.12	1.5	1.38	1.75	2				
3.75	1.13	1	1.37	1.25	1.63	2	2.25	2			
4	0.88	1.25	1.12	1.5	1.38	1.5	1.75	2.5	2.25		
4.25		1	1.37	1.25	1.63	1.75	2	2.75	2.75	2.5	2.5
4.5	-	1.25	1.12	1.5	1.38	2	2.25	2	3	3	3
4.75	-	1	1.37	1.25	1.63	1.5	1.75	2.25	2.25	3.25	3.25
5	-	1.25	1.12	1.5	1.38	1.75	2	2.5	2.5	2.5	2.5
5.25	-	1	1.37	1.25	1.63	2	2.25	2.75	2.75	2.75	2.75
5.5	-	-	1.12	1.5	1.38	1.5	1.75	2	3	3	3
5.75	-	-	1.37	1.25	1.63	1.75	2	2.25	2.25	3.25	3.25
6	-	-	1.12	1.5	1.38	2	2.25	2.5	2.5	2.5	2.5
6.25	-	-	1.37	1.25	1.63	1.5	1.75	2.75	2.75	2.75	2.75
6.5	-	-	1.12	1.5	1.38	1.75	2	2	3	3	3
6.75	-	-	-	1.25	1.63	2	2.25	2.25	2.25	3.25	3.25
7	-	-	-	1.5	1.38	1.5	1.75	2.5	2.5	2.5	2.5
7.25	-	-	-	1.25	1.63	1.75	2	2.75	2.75	2.75	2.75
7.5	-	-	-	1.5	1.38	2	2.25	2	3	3	3
7.75	-	-	-	1.25	1.63	1.5	1.75	2.25	2.25	3.25	3.25
8	-	-	-	-	1.38	1.75	2	2.5	2.5	2.5	2.5
8.5	-	-	-	-	1.38	1.5	1.75	2	3	3	3
9	-	-	-	-	1.38	2	2.25	2.5	2.25	2.5	2.5
9.5	-	-	-	-	1.38	1.5	1.75	2	2.75	3	3
10	-	-	-	-	-	2	2.25	2.5	2.25	2.5	2.5
11	-	-	-	-	-	-	1.75	2	2.25	2.5	2.5
12	-	-	-	-	-	-	1.75	2	2.25	2.5	2.5
13	-	-	-	-	-	-	-	2	2.25	2.5	2.5
14	-	-	-	-	-	-	-	2	2.25	2.5	2.5
15	-	-	-	-	-	-	-	2	2.25	2.5	2.5
16	-	-	-	-	-	-	-	-	2.25	2.5	2.5
17	-	-	-	-	-	-	-	-	2.25	2.5	2.5
18	-	-	-	-	-	-	-	-	2.25	2.5	2.5
19	-	-	-	-	-	-	-	-	-	2.5	2.5
20	-	-	-	-	-	-	-	-	-	2.5	2.5

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

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