

SOCKET HEAD CAP SCREW

CLASS 12.9 METRIC



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:	Alloy Steel Class 12.9
Thread Form:	Metric 6g
Finish:	Zinc Plated
Standard:	Complies to DIN 912:1983
Mechanical Properties:	Complies to ISO 898.1 2013
Chemical Composition:	Complies to ISO 898.1 2013

HEAD MARKING

Manufacturer Mark

Property Class

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

MECHANICAL PROPERTIES

PROPERTIES	TENSILE STRENGTH (MPa)	STRESS UNDER PROOF LOAD (MPa)	HARDNESS					
	MIN	NOM.	VICKERS (HV)		BRINELL (HBW)		ROCKWELL (HRC)	
			MIN	MAX	MIN	MAX	MIN	MAX
CLASS 12.9	1220	970	385	435	380	429	39	44

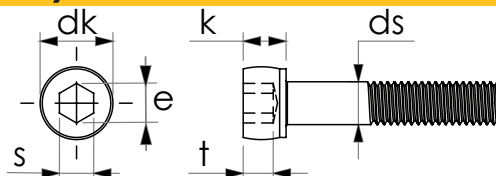
CHEMICAL COMPOSITION (%)

MATERIAL	C		P	S	B	TEMPERING TEMPERATURE °C
	MIN	MAX	MAX	MAX	MAX	MIN
ALLOY STEEL	0.30	0.50	0.025	0.025	0.003	425

FINISH INFORMATION

ZINC PLATED		
DESCRIPTION	OVERVIEW	CORROSION RESISTANCE
Zinc Plating is a process of depositing a thin layer of zinc onto the surface of a steel object through electroplating. The steel object is then passivated with a transparent conversion layer.	Bremick® Zinc Plated Coating provides a low level of corrosion protection and is recommended for dry internal application. Bremick® Zinc Plating complies with AS1789.	Low.

DIMENSIONAL DATA (mm)



DIAMETER	PITCH (mm)	SHAFT DIAMETER (ds)		HEAD DIAMETER (dk)		HEAD HEIGHT (k)		HEXAGON SOCKET SIZE ACROSS FLATS (s)		HEXAGON SOCKET SIZE ACROSS CORNERS (e)		KEY ENGAGEMENT (t)
		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MIN	
M2	0.40	1.86	2.00	3.62	3.98	1.86	2.00	1.520	1.560	1.73	1.00	
M2.5	0.45	2.36	2.50	4.32	4.68	2.36	2.50	2.020	2.060	2.30	1.10	
M3	0.50	2.86	3.00	5.32	5.68	2.86	3.00	2.520	2.580	2.87	1.30	
M4	0.70	3.82	4.00	6.78	7.22	3.82	4.00	3.020	3.080	3.44	2.00	
M5	0.80	4.82	5.00	8.28	8.72	4.82	5.00	4.020	4.095	4.58	2.50	
M6	1.00	5.82	6.00	9.78	10.22	5.70	6.00	5.020	5.140	5.72	3.00	
M8	1.25	7.78	8.00	12.73	13.27	7.64	8.00	6.020	6.140	6.86	4.00	
M10	1.50	9.78	10.00	15.73	16.27	9.64	10.00	8.025	8.175	9.15	5.00	
M12	1.75	11.73	12.00	17.73	18.27	11.57	12.00	10.025	10.175	11.43	6.00	
M14	2.00	13.73	14.00	20.67	21.33	13.57	14.00	12.032	12.212	13.72	7.00	
M16	2.00	15.73	16.00	23.67	24.33	15.57	16.00	14.032	14.212	16.00	8.00	
M18	2.50	17.73	18.00	26.67	27.33	17.57	18.00	14.032	14.212	16.00	9.00	
M20	2.50	19.67	20.00	29.67	30.33	19.48	20.00	17.050	17.230	19.44	10.00	
M22	2.50	21.67	22.00	32.61	33.39	21.48	22.00	17.050	17.230	19.44	11.00	
M24	3.00	23.67	24.00	35.61	36.39	23.48	24.00	19.065	19.275	21.73	12.00	
M27	3.00	26.67	27.00	39.61	40.39	26.48	27.00	19.065	19.275	21.73	13.50	
M30	3.50	29.67	30.00	44.61	45.39	29.48	30.00	22.065	22.275	25.15	15.50	
M33	3.50	32.61	33.00	49.61	50.39	32.38	33.00	24.065	24.275	27.43	18.00	
M36	4.00	35.61	36.00	53.54	54.46	35.38	36.00	27.065	27.275	30.85	19.00	
M42	4.50	41.61	42.00	62.54	63.46	41.38	42.00	32.080	32.330	36.57	24.00	
M48	5.00	47.61	48.00	71.54	72.46	47.38	48.00	36.080	36.330	41.13	28.00	

SOCKET OR SPANNER SIZE (mm)

SCREW DIAMETER	M2	M2.5	M3	M4	M5	M6	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30	M33	M36	M42	M48
SOCKET SIZE	1.5	2	2.5	3	4	5	6	8	10	12	14	14	17	17	19	19	22	24	27	32	36

THREAD LENGTH (mm)

NOMINAL LENGTH	M2	M2.5	M3	M4	M5	M6	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30	M33	M36	M42	M48
10																					
12																					
16																					
20																					
25			18																		
30	-	-	18	20	22																
35	-	-	18	20	22	24															
40	-	-	18	20	22	24	28														
45	-	-	18	20	22	24	28	32													
50	-	-	18	20	22	24	28	32	36												
55	-	-	-	20	22	24	28	32	36	40											
60	-	-	-	20	22	24	28	32	36	40	44										
65	-	-	-	20	22	24	28	32	36	40	44	48									
70	-	-	-	20	22	24	28	32	36	40	44	48	52	56							
80	-	-	-	20	22	24	28	32	36	40	44	48	52	56	60						
90	-	-	-	-	22	24	28	32	36	40	44	48	52	56	60	66					
100	-	-	-	-	22	24	28	32	36	40	44	48	52	56	60	66	72	78			
120	-	-	-	-	22	24	28	32	36	40	44	48	52	56	60	66	72	78	84		
130	-	-	-	-	22	-	28	32	36	40	44	48	52	56	60	66	72	78	84	96	
140	-	-	-	-	-	-	28	32	36	40	44	48	52	56	60	66	72	78	84	96	
150	-	-	-	-	-	-	28	32	36	40	44	48	52	56	60	66	72	78	84	96	108
160	-	-	-	-	-	-	-	32	36	-	44	48	52	56	60	66	72	78	84	96	108
180	-	-	-	-	-	-	-	32	36	-	44	48	52	56	60	66	72	78	84	96	108
200	-	-	-	-	-	-	-	32	36	-	44	48	52	56	60	66	72	78	84	96	108
220	-	-	-	-	-	-	-	-	-	-	48	-	-	60	-	72	78	84	96	108	
240	-	-	-	-	-	-	-	-	-	-	48	-	-	60	-	72	78	84	96	108	
260	-	-	-	-	-	-	-	-	-	-	48	-	-	60	-	72	78	84	96	108	
280	-	-	-	-	-	-	-	-	-	-	-	-	-	60	-	72	78	84	96	108	
300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72	78	84	96	108	

ALL SIZES ABOVE THE STEPPED LINE ARE FULLY THREADED

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