

HEX BOLT
CLASS 4.6 METRIC



PLAIN

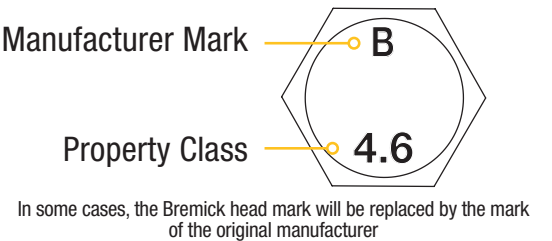
APPLICATION

Bremick® Hex Head Metric Class 4.6 bolts are designed for industrial and construction applications where moderate tensile performance is required

PRODUCT ATTRIBUTES

Material Class:	Carbon Steel Class 4.6
Thread Form:	Metric 8g
Finish:	Plain/Natural/Lightly Oiled
Standard:	Complies to AS 1111.1:2015
Mechanical Properties:	Complies to ISO 898.1:2013
Chemical Composition:	Complies to ISO 898.1:2013

HEAD MARKING



MECHANICAL PROPERTIES

PROPERTIES	TENSILE STRENGTH (MPa)	STRESS UNDER PROOF LOAD (MPa)	HARDNESS					
	MIN	NOM.	VICKERS (HV)		BRINELL (HBW)		ROCKWELL (HRB)	
			MIN	MAX	MIN	MAX	MIN	MAX
CLASS 4.6	400	225	120	220	114	209	67	95

CHEMICAL COMPOSITION (%)

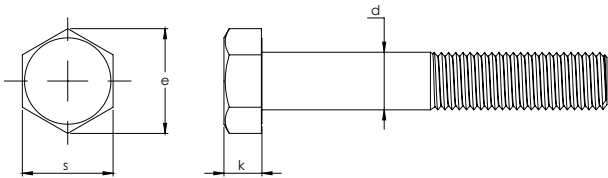
MATERIAL	C		P	S	B	TEMPERING TEMPERATURE °C
	MIN	MAX	MAX	MAX	MAX	MIN
CARBON STEEL	-	0.55	0.050	0.060	Not Specified	-

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 (mm)



DIAMETER	PITCH (mm)	ACROSS FLATS (s)		ACROSS CORNERS (e)		HEAD HEIGHT (k)		MAJOR DIAMETER (d)	
		MIN	MAX	MIN		MIN	MAX	MIN	MAX
M5	0.80	7.64	8	8.63		3.13	3.88	4.52	5.48
M6	1.00	9.64	10	10.89		3.63	4.38	5.52	6.48
M8	1.25	12.57	13	14.20		4.93	5.68	7.42	8.58
M10	1.50	15.57	16	17.59		5.95	6.85	9.42	10.58
M12	1.75	17.57	18	19.85		7.05	7.95	11.30	12.70
M14	2.00	20.16	21	22.78		8.35	9.25	13.30	14.70
M16	2.00	23.16	24	26.17		9.25	10.75	15.30	16.70
M20	2.50	29.16	30	32.95		11.60	13.40	19.16	20.84
M24	3.00	35.00	36	39.55		14.10	15.90	23.16	24.84
M27	3.00	40.00	41	45.20		16.10	17.90	26.16	27.84
M30	3.50	45.00	46	50.85		17.65	19.75	29.16	30.84
M36	4.00	53.80	55	60.79		21.45	23.55	35.00	37.00
M42	4.50	63.10	65	71.30		24.95	27.05	41.00	43.00
M48	5.00	73.10	75	82.60		28.95	31.05	47.00	49.00

SOCKET OR SPANNER SIZE (mm)

BOLT DIAMETER	M5	M6	M8	M10	M12	M14	M16	M20	M24	M27	M30	M36	M42	M48
SPANNER SIZE	8	10	13	16	18	21	24	30	36	41	46	55	65	75

THREAD LENGTH (mm)

Length	M5	M6	M8	M10	M12	M14	M16	M20	M24	M27	M30	M36	M42	M48
20														
25	16													
30	16	18												
35	16	18												
40	16	18	22											
45	16	18	22	26										
50	16	18	22	26	30									
55	16	18	22	26	30									
60	16	18	22	26	30	34								
65	16	18	22	26	30	34	38							
70	16	18	22	26	30	34	38							
80	16	18	22	26	30	34	38	46						
90	16	18	22	26	30	34	38	46	54					
100	16	18	22	26	30	34	38	46	54	60				
110	16	18	22	26	30	34	38	46	54	60	66			
120	16	18	22	26	30	34	38	46	54	60	66			
130	22	24	28	32	36	40	44	52	60	66	72			
140	22	24	28	32	36	40	44	52	60	66	72	84		
150	22	24	28	32	36	40	44	52	60	66	72	84		
160	22	24	28	32	36	40	44	52	60	66	72	84	96	
180	22	24	28	32	36	40	44	52	60	66	72	84	96	108
200	22	24	28	32	36	40	44	52	60	66	72	84	96	108
220	35	37	41	45	49	53	57	65	73	79	85	97	109	121
240	35	37	41	45	49	53	57	65	73	79	85	97	109	121
260	35	37	41	45	49	53	57	65	73	79	85	97	109	121
280	35	37	41	45	49	53	57	65	73	79	85	97	109	121
300	35	37	41	45	49	53	57	65	73	79	85	97	109	121
325	-	37	41	45	49	53	57	65	73	79	85	97	109	121
350	-	37	41	45	49	53	57	65	73	79	85	97	109	121
375	-	-	41	45	49	53	57	65	73	79	85	97	109	121
400	-	-	41	45	49	53	57	65	73	79	85	97	109	121
425	-	-	-	45	49	53	57	65	73	79	85	97	109	121
450	-	-	-	45	49	53	57	65	73	79	85	97	109	121
475	-	-	-	-	49	53	57	65	73	79	85	97	109	121
500	-	-	-	-	49	53	57	65	73	79	85	97	109	121
550	-	-	-	-	-	53	57	65	73	79	85	97	109	121
600	-	-	-	-	-	-	57	65	73	79	85	97	109	121
650	-	-	-	-	-	-	57	65	73	79	85	97	109	121
700	-	-	-	-	-	-	-	65	73	79	85	97	109	121
750	-	-	-	-	-	-	-	65	73	79	85	97	109	121

ALL SIZES ABOVE THE STEPPED LINE ARE FULLY THREADED

Whilst every care was taken in the preparation of this publication, Bremick® accepts no responsibility for the accuracy of the information supplied. Bremick® reserves the right to make alterations to specifications as part of ongoing development and improvement. This publication serves as a guide and it's the responsibility of the end user to ensure suitability for their application. The contents of this publication are the exclusive copyright of Bremick® and may not be reproduced without permission.

Bremick Pty Ltd
Head Office | 88 Dalmeny Avenue, Rosebery 2018
National Distribution Centre | M5/M7 Logistics Park,
Warehouse 4B, 290 Kurrajong Road, Prestons NSW 2170
www.bremick.com.au

BREMICK® HEX BOLT CLASS 4.6 METRIC PLAIN

ISSUE DATE 07/2025 | 2 | 2