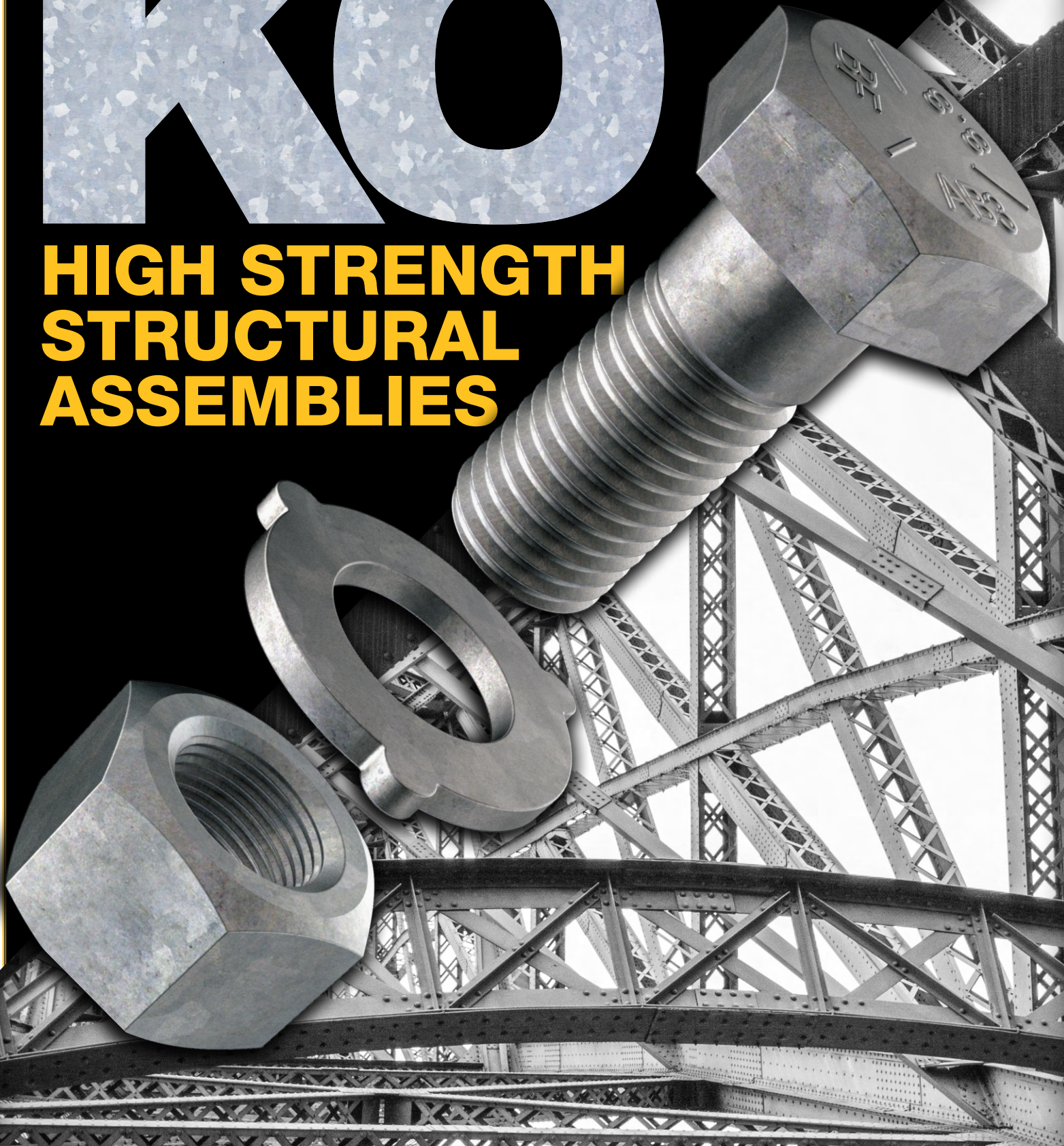


BREMICK®

KO

**HIGH STRENGTH
STRUCTURAL
ASSEMBLIES**



Bremick KO Structural Assemblies are compliant to the latest version of **AS/NZS 1252.1:2016** & **AS/NZS 1252.2:2016**.



K0 Structural Fasteners Upgrade

Bremick has made its biggest update to Structural Fasteners since the launch of K0 Structural Assemblies, which are manufactured in accordance with AS/NZS 1252.1:2016.

Introducing

- **New and improved certification** makes it quicker and easier to find the information you are looking for. It also contains comprehensive NATA & ILAC confirmation testing reports combined with the original steel mill certificates.
- **New website access to certification.** No log in details are required and allows for customer and end user access, so that reports can be downloaded or viewed quickly and easily anytime.
- **New unique head marking** allows traceability after the assembly is removed from the packaging. The head mark provides traceability for years after installation with links back to the original steel and the manufactured batch.
- **New broader range,** We have increased our range to include more sizes that are stocked in our branch warehouses for same day/next day delivery. This includes a full range of nut only and washer only items that are manufactured to AS/NZS 1252.1:2016.

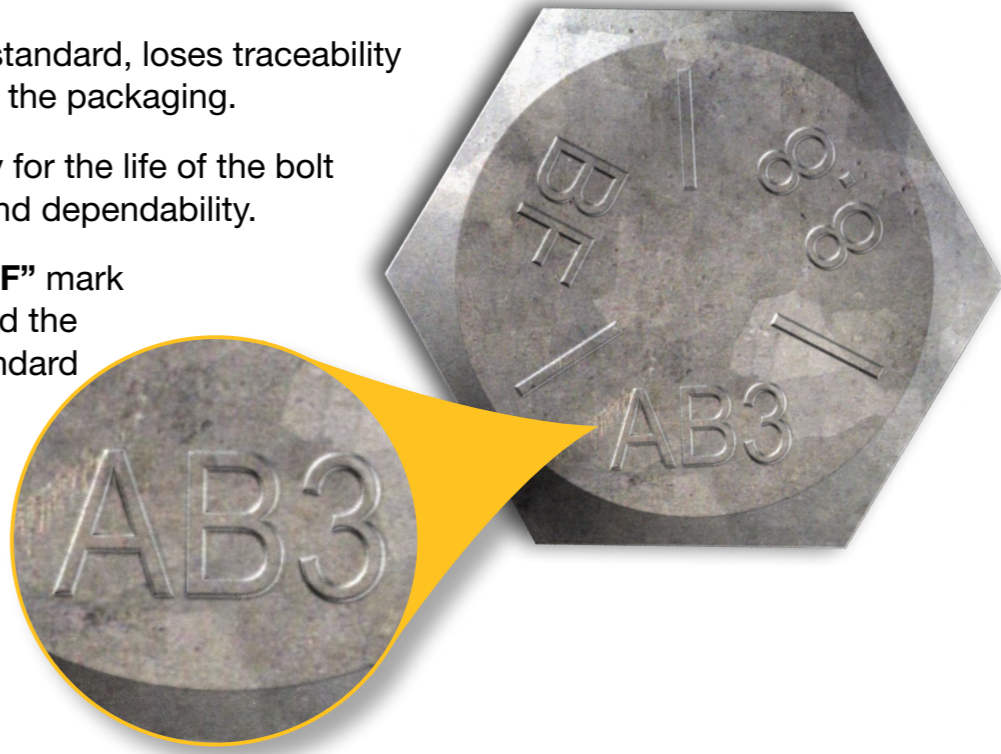
New Unique HEAD MARK

Additional head marking includes a unique identifier which relates back to the original steel and batch manufacturing process. Having this unique mark on the head adds additional traceability, not required by the standard.

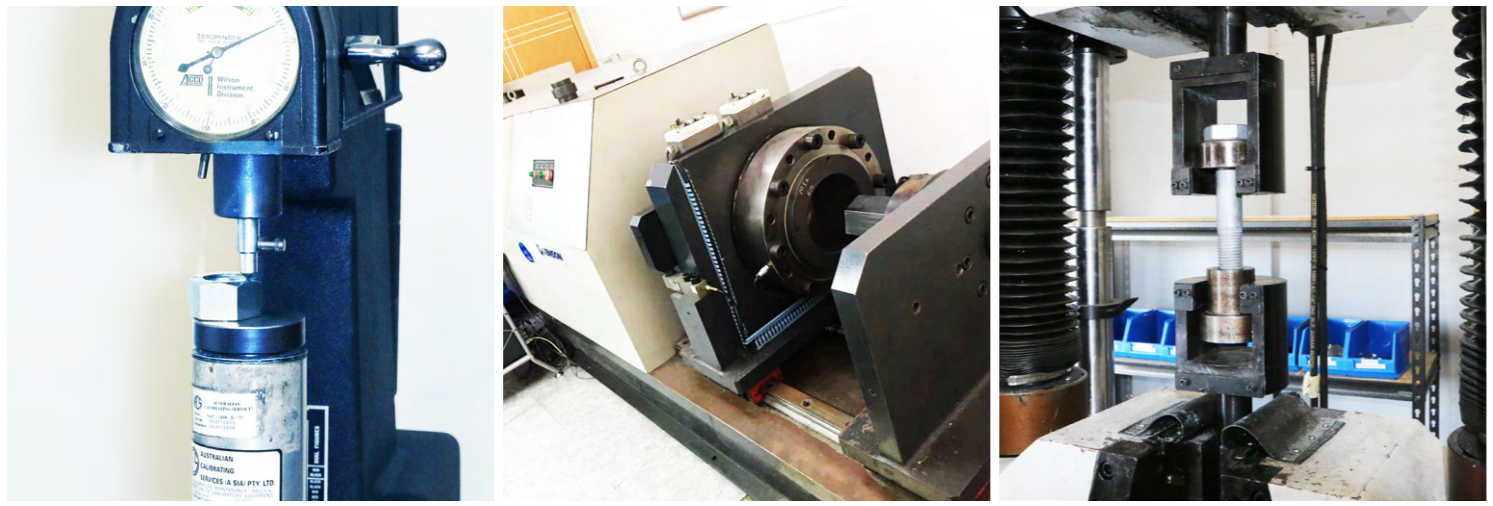
The current system as per the standard, loses traceability once the bolt is separated from the packaging.

This mark allows for traceability for the life of the bolt adding additional confidence and dependability.

The bolt retains the Bremick **“BF”** mark and the property class **“8.8”** and the three radial lines as per the standard requirements, whilst including the new marking,



NATA Accredited Laboratory & Testing Facilities



Bremick® K0 Structural is compliant to the latest version of AS/NZS 1252.1:2016 & AS/NZS 1252.2:2016.

Updated compulsory assembly testing and conformity requirements within the above standard ensures the product meets the highest quality standard for any steelwork construction.

Marking on the label indicates compliance with AS/NZS 1252.1:2016 and AS/NZS 1252.2:2016.

APPLICABLE STANDARD & VERSION

FINISH

BOX WEIGHT

UNIQUE HEAT NUMBERS FOR BOLTS & NUTS

UNIQUE BATCH NUMBER

BOX QTY

SIZE

BREMICK CODE

SUPPLIERS DECLARATION OF CONFORMITY (SDOC)

Label Content:
BREMICK QTY: 100
KO STRUCTURAL ASSEMBLY
M16 x 60
HOT DIP GALVANISED K08MG160601
AS 1252:2016 KO CLASS 8.8
SDoc: This product complies to AS 1252:2016 Part 1 and 2 (mandatory). ALL conforming documentation is available online at bremick.com.au
BOLT HEAT: 2-21626
NUT HEAT: 19155611
Job No: 41989
WGT: 19.5KG
9 537357 476525

Save time reviewing reports

We have designed new NATA confirmation reports and inspection certificates. The NEW design groups like data together under easy-to-read headings. This reduces time and eliminates confusion when reviewing the reports.



We have removed customer information from the certificates. This ensures the certificates are present on the website prior to the sale of any product.

Chemical Composition

INSPECTION CERTIFICATE 3.1
Structural Assembly K0 Range
BREMICK
 29/37 Logistics Park, Warehouse 4B,
 230 Kuring Road, Prestons NSW 2170

CERTIFICATE No: STK2408102 DATE OF ISSUE: 15/09/2024 HEAD No: ZPG

Product Information
 CODE: K08M241201 PALLET REF: 21087342 JOB No: 53404
 DESCRIPTION: M24*120 CLASS 8.8 MANUFACTURE LOT QTY: 8500
 STANDARD: AS 1252-1-2016 TEST QTY: n = 4
 QUALITY SYSTEM: GB/T19001-2016/ISO9001:2015 CERTIFICATE NUMBER: 00120031689RAM3202

Chemical Composition
 Complies to ISO898-1-2/AS4291-1-2

PART	HEAT No	C %	Mn %	P %	S %	B %
REQUIRED		0.25-0.55	n/a	0.035 max	0.035 max	0.003 max
BOLT	B23050714	0.40	0.63	0.018	0.004	
REQUIRED		0.58 max	0.25 min	0.060 max	0.190 max	
NUT	1-06803	0.45	0.67	0.014	0.004	0.0000
REQUIRED		n/a	n/a	n/a	n/a	n/a
WASHER	22812948	0.46	0.60	0.012	0.010	0.0000

Mechanical Properties
 Tested to AS/NZS 1252-1-2016 Table B1

TEST	REQUIREMENT	RESULT	TEST	REQUIREMENT	RESULT
Hardness	d <= 16mm 22-32 HRC d > 16mm 23-34 HRC	28.00	Hardness	24-36 HRC	29.00
Wedge Test	6* d <= 16mm 800 MPa d > 16mm 830 MPa	918.00	Proof Stress (min)	1165 MPa	1165 MPa
Yield	680 MPa	737.00	Hardness	33-41HRC	37.00
Proof Stress	d <= 16mm 580 MPa d > 16mm 600 MPa	PASS			

Assembly Test
 Tested to AS/NZS 1252-1-2016

TEST CONDITIONS	REQUIREMENT	RESULTS
CLAMP LENGTH (mm)	MIN NUT TENSION kN	SAMPLE 1 254.00
No. OF SHIMS	MIN NUT ROTATION DEGREES	SAMPLE 2 254.00
ROTATION SPEED		SAMPLE 3 254.00
LUBRICATION CONDITIONS		SAMPLE 4 254.00
BOLT LENGTH		SAMPLE 5 254.00
Dry to touch		

Visual, Dimensions, Coating & Markings

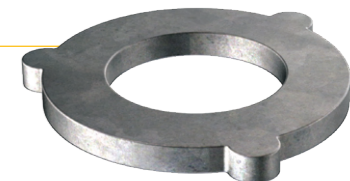
PART	VISUAL INSPECTION ISO 1417-1-2	DIMENSIONS AS/NZS 1252-2016	COATING COMPLIES TO AS/NZS 1214 REQUIREMENT 50 min	MARKINGS
BOLT	PASS	PASS	HDG	Bolt: BF 8.8 2016 THREE RADIAL LINES Nut: BF 8 THREE ARC LINES Washer: THREE NIBS
NUT	PASS	PASS	HDG	
WASHER	PASS	PASS	HDG	

This certificate complies with AS/NZS 1252-1-2016
 Name: Afshin Muhammadiazar
 Position: Quality Manager
 Signature: _____

Bolt Test report



Washer Test Report



Mechanical Properties

Assembly Test

Visual, Dimensions, Coatings, Markings

Nut Test report



Other reports included as well as steel mill certificates for complete traceability

LRQA
 CERTIFICATE OF CONFORMITY OF FACTORY PRODUCTION CONTROL
 Manufacturer: Bremick PTY LTD approved factory No.2

NINGBO ZHONGJI INSPECTION OF MACHINERY PARTS CO., LTD
 TEST REPORT
 Report number: NBZJ0202310028
 Receiving Date: 26. Sep. 2023
 Test Date: 26. Sep. 2023-27. Sep. 2023
 Sample Source: Supplied by client
 Name of Client: Bremick Pty Ltd
 Address: 88 Dalmeny Avenue, Rosebery NSW 2018
 Test Requirements: AS/NZS 1252-1-2016
 The technical requirement supplied by client

BREMICK
 Bremick Pty Ltd
 29/37 Logistics Park, Warehouse 4B,
 230 Kuring Road, Prestons NSW 2170
 Australia NSW 2015
 Tel: +61 2 8332 1500
 Fax: +61 2 8880 1474

ATTESTATION OF PRODUCT CONFORMITY
 TEST REPORT NUMBER: STK2408102
 DATE OF ISSUE: 15/09/2024
 Bremick Fasteners manufactured K0 8.8 STRUCT ASS GAL M24 X 120, job number 53404 to meet the technical requirements of AS/NZS 1252-1-2016, and comply with the verification testing of Type Third Party Testing has been conducted by Ningbo Zhongji Inspection of Machinery Parts Co., Ltd.

质量证明书
 MILL TEST CERTIFICATE
 南京钢铁股份有限公司
 Nanjing IronSteel Co., Ltd.
 产品名称: 8.8 级 热轧 螺 丝 钉
 产品规格: M24 X 120
 生产许可证号: 230530013
 交货日期: 2023-09-30

浙江元立金属制品集团有限公司
 ZHEJIANG YUANLI METAL PRODUCT GROUP CO., LTD
 产品合格证
 产品名称: 热轧 螺 丝 钉
 规格: M24 X 120
 数量: 38.49
 交货日期: 2023-09-30

Chemical Composition Table

Element	Symbol	Value
C	C	0.40
Mn	Mn	0.63
P	P	0.018
S	S	0.004
Cr	Cr	0.035
Ni	Ni	0.035
Mo	Mo	0.003
Cu	Cu	0.003
Al	Al	0.003
Ti	Ti	0.003
V	V	0.003
B	B	0.0004
Zr	Zr	
W	W	
Bi	Bi	
As	As	
Se	Se	
Ag	Ag	
Cd	Cd	
Sb	Sb	
Te	Te	
Hg	Hg	
Ca	Ca	
Mg	Mg	
Fe	Fe	
Si	Si	
Al	Al	
Ti	Ti	
V	V	
B	B	
Zr	Zr	
W	W	
Bi	Bi	
As	As	
Se	Se	
Ag	Ag	
Cd	Cd	
Sb	Sb	
Te	Te	
Hg	Hg	

TEST REPORT CHECK LIST

- Attestation of Product Conformity
- Certificate of Conformity of Factory Control (LRQA)
- Inspection Certificate 3.1
- Bolt Report
- Nut Report
- Washer Report
- Assembly Report
- Mill Certificates

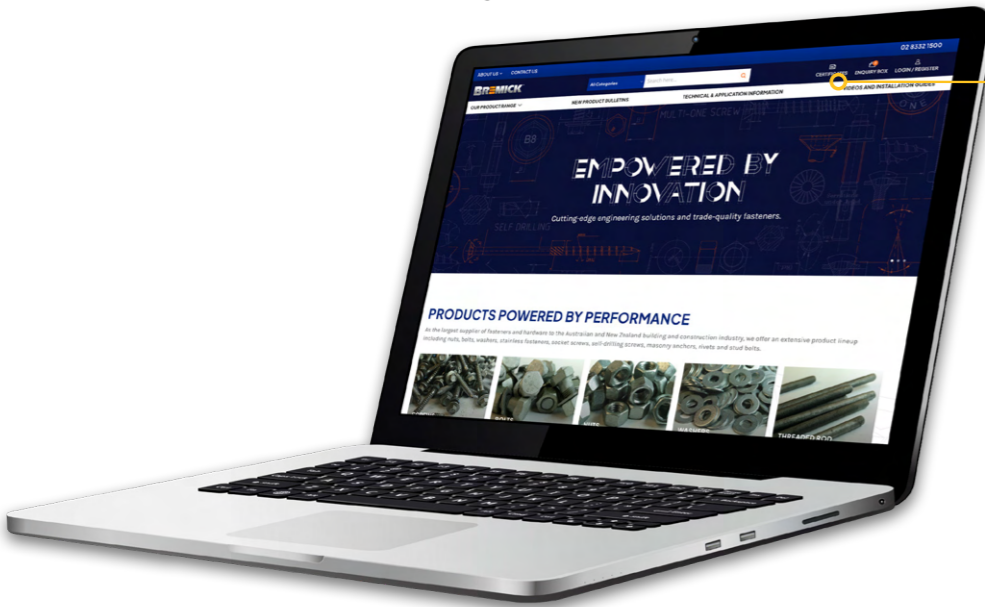
Certification Access

Access your certification with a few mouse clicks

Customer log in is no longer required to access certification. All documentation is available on our public website. No need to waste time requesting information and waiting for a reply. With a few clicks on our website you can view, download or email the certification.

Simple search

- From the home page of the Bremick website click the certificates icon in the top righthand corner
- This will open the search page below

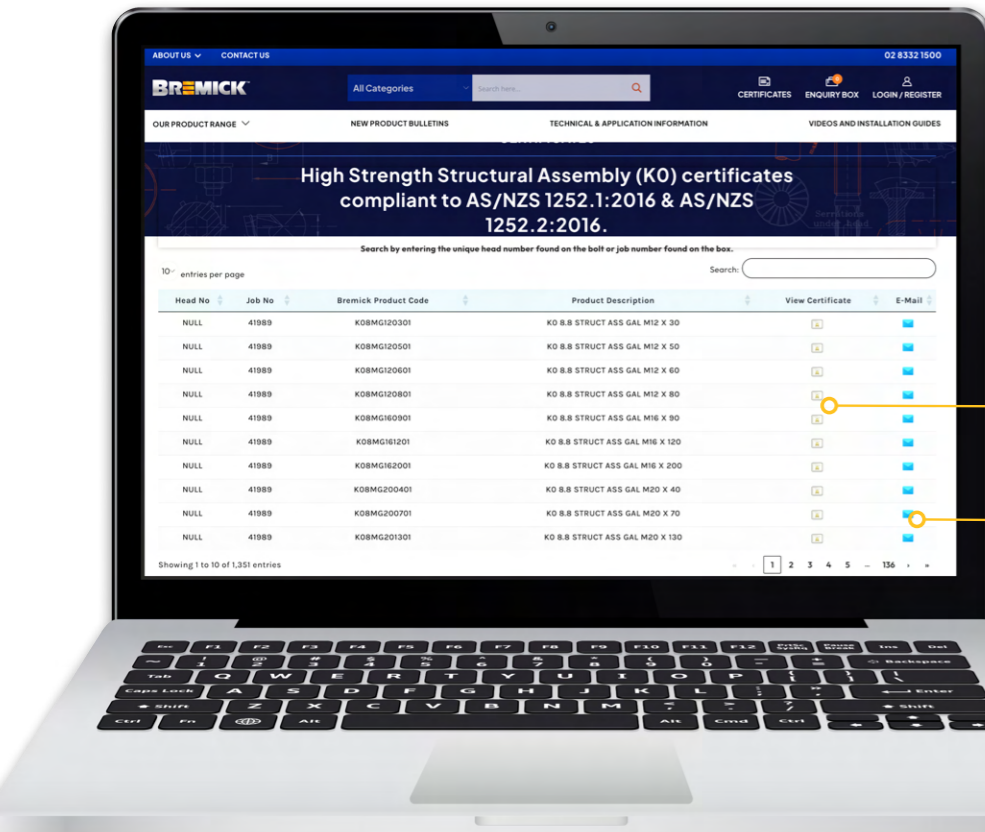


Or click this link to go directly to the search page bremick.com.au/certificates/



Enter either the Job number which is found on the box or the unique bolt head number found on the bolt head.

Simply choose the size you require.



Click  to view, save or print

Click  to email someone else a link to the certification

RANGE - STOCK LINES

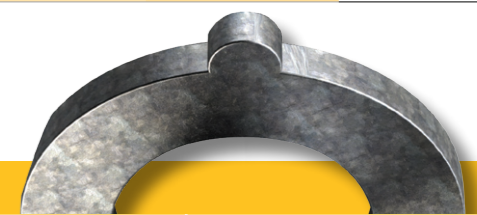
Other sizes available as special order, minimum order quantities required



Diameter	M12	M16	M20	M24	M30	M36	ADD TO CODE PREFIX
	CODE PREFIX						
LENGTH (mm)	K08MG12	K08MG16	K08MG20	K08MG24	K08MG30	K08MG36	
30	●						0301
35	●						0351
40	●	●	●				0401
45	●	●	●				0451
50	●	●	●	●			0501
55	●	●	●	●			0551
60	●	●	●	●			0601
65	●	●	●	●			0651
70	●	●	●	●			0701
75	●	●	●	●			0751
80	●	●	●	●	●		0801
85		●	●	●	●		0851
90	●	●	●	●	●		0901
100	●	●	●	●	●	●	1001
110	●	●	●	●	●	●	1101
120	●	●	●	●	●	●	1201
130	●	●	●	●	●	●	1301
140		●	●	●	●	●	1401
150	●	●	●	●	●	●	1501
160		●	●	●	●	●	1601
170		●	●	●	●	●	1701
180		●	●	●	●	●	1801
190		●		●			1901
200	●	●	●	●	●		2001
210			●	●			2101
220		●	●	●			2201
240		●	●	●			2401
250		●					2501
260			●	●	●		2601
280		●		●	●		2801
300			●	●			3001
320			●				3201
350				●			3501
400			●				4001



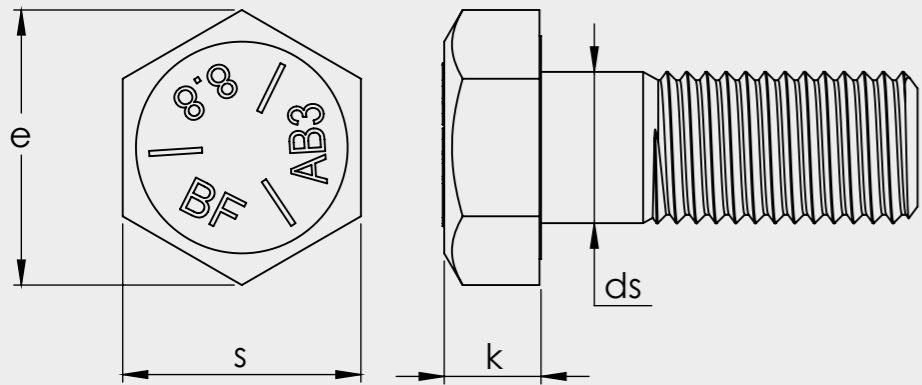
NUT		
Diameter	Code	Finish
M12	NSTMG12K082	Hot Dip Galvanised
M16	NSTMG16K082	Hot Dip Galvanised
M20	NSTMG20K082	Hot Dip Galvanised
M24	NSTMG24K082	Hot Dip Galvanised
M30	NSTMG30K082	Hot Dip Galvanised
M36	NSTMG36K082	Hot Dip Galvanised



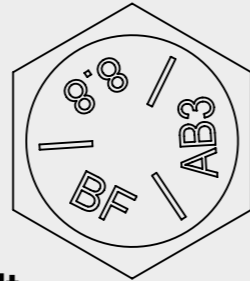
WASHER		
Diameter	Code	Finish
M12	WK0MG1200W2	Hot Dip Galvanised
M16	WK0MG1600W2	Hot Dip Galvanised
M20	WK0MG2000W2	Hot Dip Galvanised
M24	WK0MG2400W2	Hot Dip Galvanised
M30	WK0MG3000W2	Hot Dip Galvanised
M36	WK0MG3600W2	Hot Dip Galvanised

Dimensional Data – AS/NZS 1252.1:2016

BOLT



Bolt Marking

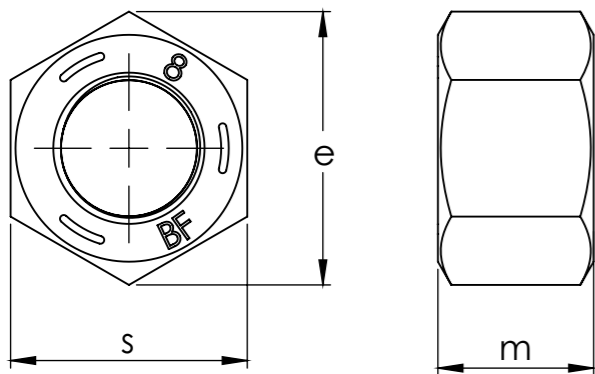


Bolt

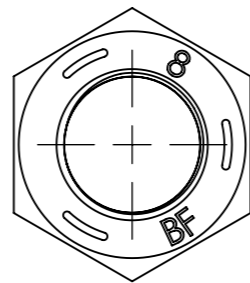
- Property class symbol
- Three radial lines
- Bremick trade mark
- **Unique traceability code**

NOMINAL SIZE	PITCH	SHANK DIAMETER (ds)		WIDTH ACROSS FLATS (s)		WIDTH ACROSS CORNERS (e)		HEIGHT OF HEAD (k)	
		Min	Max	Min	Max	Min	Max	Min	Max
d	(mm)								
M12	1.75	11.30	12.70	20.16	21.00	22.78	24.25	7.05	7.95
M16	2.00	15.30	16.70	26.16	27.00	29.56	31.20	9.25	10.75
M20	2.50	19.16	20.84	31.00	32.00	35.03	36.90	12.10	13.90
M24	3.00	23.16	24.84	40.00	41.00	45.20	47.30	14.10	15.90
M30	3.50	29.16	30.84	49.00	50.00	55.37	57.70	17.65	19.75
M36	4.00	35.00	37.00	58.80	60.00	66.44	69.30	21.45	23.55

NUT



Nut Marking

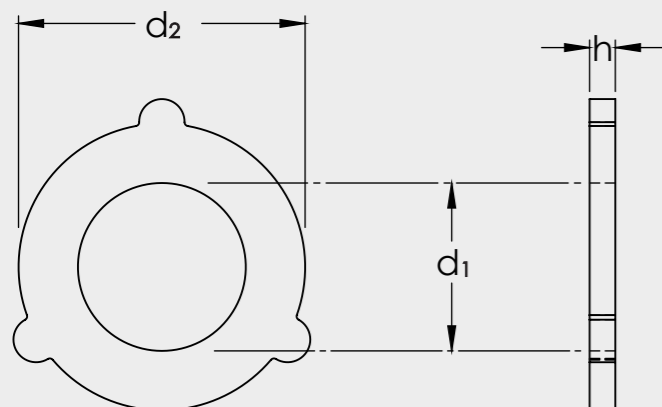


Nut

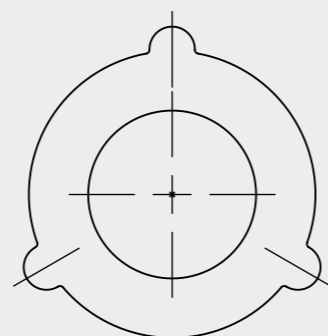
- Property class symbol
- Three circumferential lines
- Bremick trade mark

NOMINAL SIZE	PITCH	WIDTH ACROSS FLATS (s)		WIDTH ACROSS CORNERS (e)		HEIGHT OF NUT (m)	
		Min	Max	Min	Max	Min	Max
d	(mm)						
M12	1.75	20.16	21.00	22.78	24.25	12.00	13.10
M16	2.00	26.16	27.00	29.56	31.20	16.40	17.10
M20	2.50	31.00	32.00	35.03	36.90	20.00	21.30
M24	3.00	40.00	41.00	45.20	47.30	22.90	24.20
M30	3.50	49.00	50.00	55.37	57.70	29.10	30.70
M36	4.00	58.80	60.00	66.44	69.30	35.00	36.60

WASHER



Washer Marking



Washer

- Three nibs

NOMINAL SIZE	INSIDE DIAMETER (d ₁)		OUTER DIAMETER (d ₂)		THICKNESS (h)	
	Min	Max	Min	Max	Min	Max
d						
M12	14.00	14.43	25.70	27.00	3.10	4.60
M16	18.00	18.43	32.40	34.00	3.10	4.60
M20	21.00	21.33	37.40	39.00	3.10	4.60
M24	26.00	26.52	48.40	50.00	3.40	4.60
M30	33.00	33.62	58.10	60.00	3.40	4.60
M36	39.00	39.62	70.10	72.00	3.40	4.60

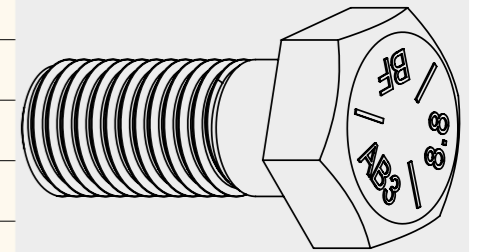
Thread Lengths – K0 Structural Bolts – AS1252.1:2016

OVERALL LENGTH			THREAD LENGTH					
Nom	Min	Max	M12	M16	M20	M24	M30	M36
35	33.75	36.25	24					
40	38.75	41.25	29	26				
45	43.75	46.25	30	31	27.5			
50	48.75	51.25	30	36	32.5			
55	53.50	56.50	30	38	37.5	34		
60	58.50	61.50	30	38	42.5	39		
65	63.50	66.50	30	38	46	44		
70	68.50	71.50	30	38	46	49	44.5	
75	73.50	76.50	30	38	46	54	49.5	
80	78.50	81.50	30	38	46	54	54.5	
85	83.25	86.75	30	38	46	54	59.5	55
90	88.25	91.75	30	38	46	54	64.5	60
95	93.25	96.75	30	38	46	54	66	65
100	98.25	101.75	30	38	46	54	66	70
110	108.25	111.75		38	46	54	66	78
120	118.25	121.75		38	46	54	66	78
130	128.00	132.00		44	52	60	72	84
140	138.00	142.00		44	52	60	72	84
150	148.00	152.00		44	52	60	72	84
160	156.00	164.00				60	72	84
170	166.00	174.00				60	72	84
180	176.00	184.00				60	72	84
190	186.00	194.00				60	72	84
200	196.00	204.00				60	72	84
220	216.00	224.00				73	85	97
240	236.00	244.00				73	85	97

NOTE: Bolts above the solid line have shorter thread lengths than the normal calculation

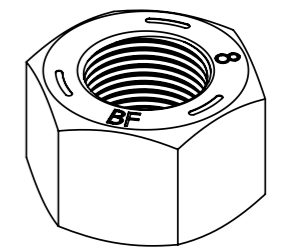
Bolts

BOLT - AS4291.1					HARDNESS ROCKWELL HRC			
SIZE	PITCH	STRESS AREA	CLASS 8.8		≤ M16		>M16	
			ULTIMATE TENSILE LOAD	PROOF LOAD	Min	Max	Min	Max
mm	mm	mm ²	N Min	N Min				
M12	1.75	84.30	70,000	50,700	22	32	23	34
M16	2.00	157.00	130,000	94,500				
M20	2.50	245.00	203,000	147,000				
M24	3.00	353.00	293,000	212,000				
M30	3.50	561.00	466,000	337,000				
M36	4.00	817.00	678,000	490,000				



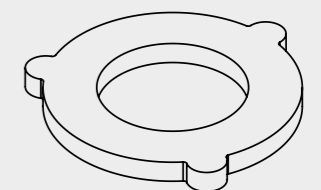
Nuts

NUT - AS4291.2				HARDNESS ROCKWELL HRC	
SIZE	TENSILE STRESS AREA OF THREADED TEST MANDREL	PROOF LOAD (kN)		Min	Max
		HOT DIPPED GALVANISED	OTHER FINISH		
mm	mm ²				
M12	84.30	98.2	90.6	24	36
M16	157.00	182.9	168.9		
M20	245.00	285.4	263.4		
M24	353.00	411.2	379.5		
M30	561.00	653.6	603.1		
M36	817.00	951.8	878.3		



Washers

WASHER - AS/NZS 1252.1	
HARDNESS ROCKWELL HRC	
Min	Max
33	41



NOTE: Coating is removed before testing

BREMICK®

KO STRUCTURAL

**BREMICK
HEADMARK**

**PROPERTY
CLASS AS PER
ISO 898-1**



**UNIQUE
HEADMARK**

CONTACT US – bremick.com.au – bremick.co.nz

Australia (Sydney)
E sales@bremick.com.au
P +61 2 8332 1500

New Zealand (Auckland)
E nthnzsales@bremick.co.nz
P 9525 2244

New Zealand (Christchurch)
E sthnzsales@bremick.co.nz
P 3365 8998