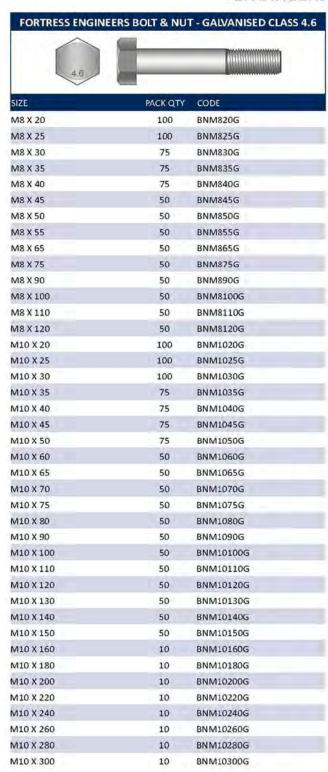
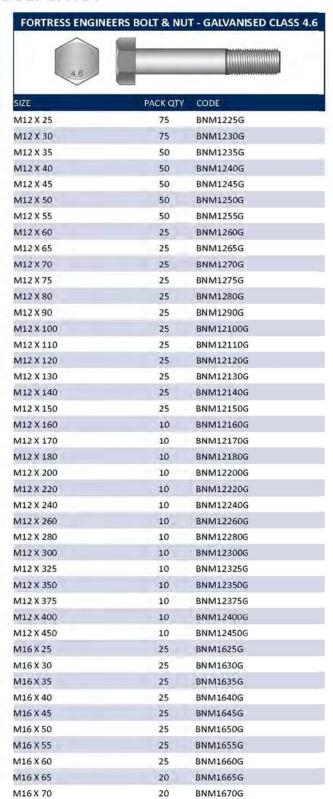
Tel: 021-22871403



#### BOLT & NUT Standard: BOLTS - AS 1111, NUTS - AS1112

#### **ENGINEERS BOLT & NUT**





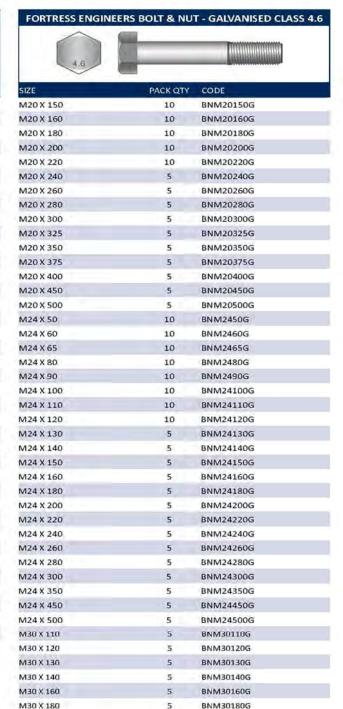
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BOLT AND NUT Standard: BOLTS - AS | | | | NUTS - AS | | | 2



~	_	
SIZE	PACK QTY	CODE
M16 X 75	20	BNM1675G
M16 X 80	20	BNM1680G
M16 X 90	20	BNM1690G
M16 X 100	15	BNM16100G
M16 X 110	15	BNM16110G
M16 X 120	15	BNM16120G
M16 X 130	15	BNM16130G
M16 X 140	15	BNM16140G
M16 X 150	15	BNM16150G
M16 X 160	10	BNM16160G
M16 X 180	10	BNM16180G
M16 X 200	10	BNM16200G
M16 X 220	10	BNM16220G
M16 X 240	10	BNM16240G
M16 X 260	10	BNM16260G
M16 X 280	10	BNM16280G
M16 X 300	10	BNM16300G
M16 X 325	5	BNM16325G
M16 X 350	5	BNM16350G
M16 X 375	5	BNM16375G
M16 X 400	5	BNM16400G
M16 X 425	5	BNM16425G
A16 X 450	5	BNM16450G
M16 X 475	5	BNM16475G
A16 X 500	5	BNM16500G
M20 X 40	10	BNM2040G
A20 X 45	10	BNM2045G
M20 X 50	10	BNM2050G
M20 X 55	10	BNM2055G
M20 X 60	10	BNM2060G
M20 X 65	10	BNM2065G
M20 X 70	10	BNM2070G
M20 X 75	10	BNM2075G
M20 X 80	10	BNM2080G
M20 X 90	10	BNM2090G
A20 X 100	10	BNM20100G
M20 X 110	10	BNM20110G
M20 X 120	10	BNM20120G
M20 X 130	10	BNM20130G



Tel: 021-22871403



BOLT & NUT Standard: BOLTS - AS | | | | NUTS - AS | | | 2

4.6				
IZE	PACK QTY	CODE		
16 X 12	200	BNM612Z		
16 X 16	200	BNM616Z		
16 X 20	200	BNM620Z		
6 X 25	200	BNM625Z		
16 X 30	150	BNM630Z		
16 X 35	150	BNM635Z		
16 X 40	150	BNM640Z		
16 X 45	150	BNM645Z		
6 X 50	150	BNM650Z		
6 X 55	150	BNM655Z		
6 X 60	150	BNM660Z		
16 X 65	150	BNM665Z		
6 X 70	150	BNM670Z		
6 X 75	150	BNM675Z		
6 X 80	125	BNM680Z		
6 X 90	100	BNM690Z		
6 X 100	100	BNM6100Z		
6 X 110	100	BNM6110Z		
8 X 20	100	BNM820Z		
8 X 25	75	BNM825Z		
18 X 30	75	BNM830Z		
18 X 35	75	BNM835Z		
8 X 40	75	BNM840Z		
8 X 45	50	BNM845Z		
8 X 50	50	BNM850Z		
8 X 55	50	BNM855Z		
8 X 60	50	BN M860Z		
8 X 65	50	BNM865Z		

4.6	Transmitting.		
IZE	PACK QTY	CODE	
18 X 70	50	BNM870Z	
18 X 75	50	BNM875Z	
18 X 80	75	BNM880Z	
18 X 90	50	BNM890Z	
18 X 100	50	BNM8100Z	
8 X 110	.50	BNM8110Z	
8 X 120	50	BNM8120Z	
10 X 20	100	BNM1020Z	
10 X 25	100	BNM1025Z	
10 X 30	100	BNM1030Z	
10 X 35	75	BNM1035Z	
10 X 40	75	BNM1040Z	
10 X 45	75	BNM1045Z	
10 X 50	75	BNM1050Z	
10 X 60	50	BNM1060Z	
10 X 65	50	BNM1065Z	
LO X 70	50	BNM1070Z	
10 X 75	50	BNM1075Z	
10 X 80	50	BNM1080Z	
10 X 90	50	BNM1090Z	
10 X 100	50	BNM10100Z	
10 X 110	25	BNM10110Z	
10 X 120	25	BNM10120Z	
0 X 130	25	BNM10130Z	
0 X 140	50	BNM10140Z	
10 X 150	50	BNM10150Z	
12 X 25	50	BNM1225Z	
12 X 30	50	BNM1230Z	
12 X 35	50	BNM1235Z	
12 X 40	50	BNM1240Z	
2 X 45	50	BNM1245Z	
L2 X 50	50	BNM1250Z	
2 X 55	50	BNM1255Z	
12 X 60	50	BNM1260Z	
2 X 65	50	BNM1265Z	
12 X 70	50	BNM1270Z	
12 X 80	50	BNM1280Z	
12 X 90	50	BNM1290Z	
12 X 100	25	BNM12100Z	
12 X 110	25	BNM12110Z	
12 X 110	25	BNM121102 BNM12120Z	
12 X 120 12 X 130	25	BNM12130Z	
16 X 30	25	BNM1530Z	

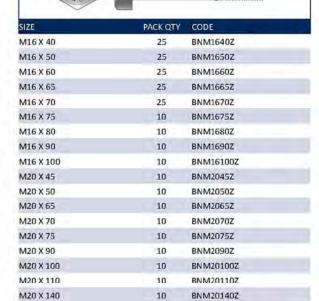
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BOLT AND NUT Standard: 8.8 BOLTS - AS 1110. NUTS - AS1112

FORTRESS ENGINEERS BOLT & NUT - ZINC PLATED CLASS 8.8

### FORTRESS ENGINEERS BOLT & NUT - ZINC PLATED CLASS 4.6



8.8			
ZE	PACK QTY	CODE	
16 X 16	200	BNHM616Z	
16 X 20	200	BNHM620Z	
16 X 25	200	BNHM625Z	
16 X 30	150	BNHM630Z	
16 X 35	150	BNHM635Z	
16 X 40	150	BNHM640Z	
16 X 45	100	BNHM645Z	
16 X 50	100	BNHM650Z	
16 X 55	100	BNHM655Z	
16 X 60	100	BNHM660Z	
16 X 65	100	BNHM665Z	
16 X 70	100	BNHM670Z	
16 X 80	100	BNHM680Z	
16 X 90	100	BNHM690Z	
16 X 100	75	BNHM6100Z	
18 X 16	125	BNHM816Z	
18 X 20	100	BNHM820Z	
18 X 25	100	BNHM825Z	
18 X 30	75	BNHM830Z	
18 X 35	75	BNHM835Z	
18 X 40	75	BNHM840Z	
8 X 45	50	BNHM845Z	
8 X 50	50	BNHM850Z	
8 X 55	50	BNHM855Z	
18 X 60	50	BNHM860Z	
8 X 65	50	BNHM865Z	
8 X 70	50	BNHM870Z	
18 X 75	50	BNHM875Z	
18 X 80	50	BNHM880Z	
8 X 90	50	BNHM890Z	
18 X 100	50	BNHM8100Z	
18 X 110	50	BNHM8110Z	
110 X 20	100	BNHM1020Z	
110 X 25	100	BNHM1025Z	
110 X 30	100	BNHM1030Z	
10 X 35	75	BNHM1035Z	
110 X 40	75	BNHM1040Z	
110 X 50	75	BNHM1050Z	
110 X 55	50	BNHM1055Z	
10 X 60	50	BNHM1060Z	
110 X 65	50	BNHM1065Z	
10 X 70	50	BNHM1070Z	

Tel: 021-22871403



BOLT & NUT Standard: 8.8 BOLTS - AS | | | 0. NUTS - AS | | | 2

FORTRESS ENGIN	NEERS BOLT & NU	T - ZINC PLATED CLASS 8.
8.8		***************************************
SIZE	PACK QTY	CODE
M10 X 75	50	BNHM1075Z
M10 X 80	50	BNHM1080Z
M10 X 90	50	BNHM1090Z
M10 X 100	50	BNHM10100Z
M10 X 110	25	BNHM10110Z
M10 X 120	25	BNHM10120Z
M10 X 130	25	BNHM10130Z
M10 X 140	25	BNHM10140Z
M10 X 150	25	BNHM10150Z
M12 X 25	75	BNHM1225Z
M12 X 30	75	BNHM12130Z
M12 X 35	50	BNHM1235Z
M12 X 40	50	BNHM1240Z
M12 X 45	50	BNHM1245Z
M12 X 50	50	BNHM1250Z
M12 X 55	25	BNHM1255Z
M12 X 60	25	BNHM1260Z
M12 X 65	25	BNHM1265Z
M12 X 70	25	BNHM1270Z
M12 X 75	25	BNHM1275Z
M12 X 80	25	BNHM1280Z
M12 X 90	25	BNHM1290Z
M12 X 100	25	BNHM12100Z
M12 X 110	25	BNHM12110Z
M12 X 120	25	BNHM12120Z
M12 X 130	25	BNHM12130Z
M12 X 140	25	BNHM12140Z
M12 X 150	25	BNHM12150Z
M12 X 160	25	BNHM12160Z
M12 X 170	25	BNHM12170Z
M12 X 180	25	BNHM12180Z
M12 X 200	10	BNHM12200Z
M14 X 25	25	BNHM1425Z
M14 X 40	25	BNHM1440Z
M14 X 50	25	BNHM1450Z
M14 X 60	25	BNHM1460Z
M14 X 100	25	BNHM14100Z
M16 X 30	25	BNHM16030Z
M16 X 35	25	BNHM1635Z
M16 X 40	25	BNHM1640Z
M16 X 45	25	BNHM1645Z
M16 X 50	25	BNHM1650Z
M16 X 55	25	BNHM1655Z
M16 X 60	25	BNHM1660Z

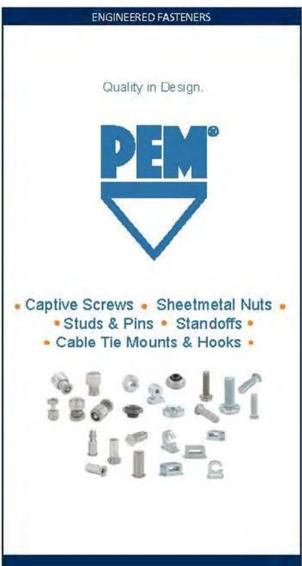
8.8			
SIZE	PACK QTY	CODE	
M16 X 65	25	BNHM1665Z	
M16 X 70	20	BNHM1670Z	
M16 X 75	20	BNHM1675Z	
И16 X 80	20	BNHM1680Z	
И16 X 90	20	BNHM1690Z	
116 X 100	15	BNHM16100Z	
116 X 110	15	BNHM16110Z	
M16 X 120	15	BNHM16120Z	
/16 X 130	15	BNHM16130Z	
116 X 140	15	BNHM16140Z	
116 X 150	15	BNHM16150Z	
120 X 40	15	BNHM2040Z	
120 X 45	15	BNHM2045Z	
120 X 50	15	BNHM2050Z	
120 X 55	15	BNHM2055Z	
120 X 60	15	BNHM2060Z	
120 X 65	15	BNHM2065Z	
120 X 70	15	BNHM2070Z	
120 X 75	15	BNHM2075Z	
120 X 80	10	BNHM2080Z	
120 X 90	10	BNHM2090Z	
120 X 100	10	BNHM20100Z	
120 X 110	10	BNHM20110Z	
120 X 150	10	BNHM20150Z	
120 X 180	10	BNHM20180Z	
120 X 200	5	BNHM20200Z	
124 X 50	5	BNHM2450Z	
124 X 65	5	BNHM2465Z	
124 X 90	5	BNHM2490Z	
124 X 100	5	BNHM24100Z	
124 X 110	5	BNHM24110Z	
24 X 140	5	BNHM24140Z	
124 X 160	5	BNHM24160Z	

Tel: 021-22871403



#### **BOLT & NUT**





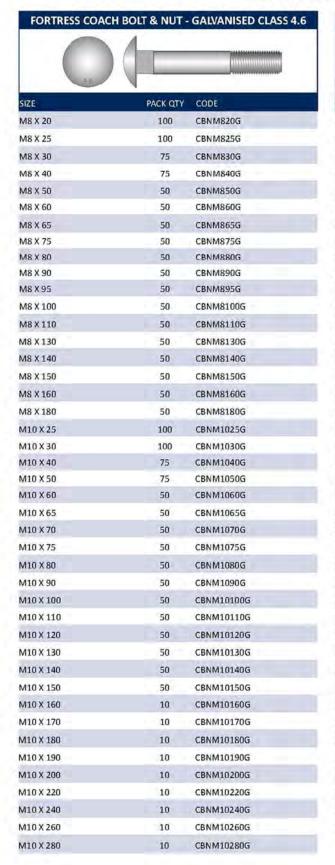
All Stainless Steel stock is subject to availability at time of order.

Tel: 021-22871403



#### BOLT AND NUT Standard: AS 1390

#### **COACH BOLT & NUT**



FORTRESS COACH	H BOLT & NUT	GALVANISED CLASS 4.6		
	1			
		ammunimm		
45	V			
SIZE	PACK QTY	CODE		
M10 X 300	10	CBNM10300G		
M12 X 30	50	CBNM1230G		
M12 X 40	50	CBNM1240G		
M12 X 50	50	CBNM1250G		
M12 X 60	25	CBNM1260G		
M12 X 65	25	CBNM1265G		
M12 X 70	25	CBNM1270G		
M12 X 75	25	CBNM1275G		
M12 X 90	25	CBNM1290G		
M12 X 100	25	CBNM12100G		
M12 X 110	25	CBNM12110G		
M12 X 120	25	CBNM12120G		
M12 X 130	25	CBNM12130G		
M12 X 140	25	CBNM12140G		
M12 X 150	25	CBNM12150G		
M12 X 160	10	CBNM12160G		
M12 X 170	10	CBNM12170G		
M12 X 180	10	CBNM12180G		
M12 X 190	10	CBNM12190G		
M12 X 200	10	CBNM12200G		
M12 X 220	10	CBNM12220G		
M12 X 240	10	CBNM12240G		
M12 X 260	10	CBNM12260G		
M12 X 280	10	CBNM12280G		
M12 X 300	10	CBNM12300G		
M12 X 325	10	CBNM12325G		
M12 X 350	10	CBNM12350G		
M12 X 375	10	CBNM12375G		
M12 X 400	10	CBNM12400G		
M16 X 50	10	CBNM1650G		
M16 X 65		CBNM1665G		
No. of the last of	10			
M16 X 75	10	CBNM1675G		
И16 X 90	10	CBNM1690G		
M16 X 100	10	CBNM16100G		
M16 X 110	10	CBNM16110G		
M16 X 150	10	CBNM16150G		
M16 X 160	10	CBNM16160G		
M16 X 180	10	CBNM16180G		
M16 X 200	10	CBNM16200G		
M16 X 220	10	CBNM16220G		
M16 X 240	10	CBNM16240G		
M16 X 250	10	CBNM16250G		

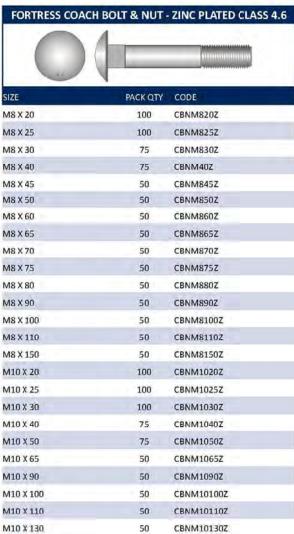
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#### BOLT & NUT Standard: AS1390







Tel: 021-22871403



BOLT AND NUT Standard: Din 603

		mouni	41.00		· · · · · · · · · · · · · · · · · · ·		
SIZE	PACK QTY	T304 (A2)	T316 (A4)	SIZE	PACK QTY	T304 (A2)	T316 (A4)
M6 X 25	50	CBNXM625	CBNXM625T	M10 X 260	10	CBNXM10260	CBNXM102607
M6 X 30	50	CBNXM630	CBNXM630T	M10 X 280	10	CBNXM10280	CBNXM102807
M6 X 40	50	CBNXM640	CBNXM640T	M10 X 300	10	CBNXM10300	CBNXM10300
M6 X 50	50	CBNXM650	CBNXM650T	M12 X 40	25	CBNXM1240	CBNXM1240T
M6 X 60	50	CBNXM660	CBNXM660T	M12 X 50	25	CBNXM1250	CBNXM1250T
M6 X 75	50	CBNXM675	CBNXM675T	M12 X 60	25	CBNXM1260	CBNXM1260T
M6 X 80	50	CBNXM680	CBNXM680T	M12 X 65	25	CBNXM1265	CBNXM1265T
M8 X 20	25	CBNXM820	CBNXM820T	M12 X 75	25	CBNXM1275	CBNXM1275T
M8 X 25	25	CBNXM825	CBNXM825T	M12 X 80	25	CBNXM1280	CBNXM1280T
M8 X 30	25	CBNXM830	CBNXM830T	M12 X 90	25	CBNXM1290	CBNXM1290T
M8 X 40	25	CBNXM840	CBNXM840T	M12 X 100	25	CBNXM12100	CBNXM121007
M8 X 50	25	CBNXM850	CBNXM850T	M12 X 110	25	CBNXM12110	CBNXM121101
M8 X 65	25	CBNXM865	CBNXM865T	M12 X 120	25	CBNXM12120	CBNXM121201
M8 X 70	25	CBNXM870	CBNXM870T	M12 X 130	25	CBNXM12130	CBNXM121307
M8 X 75	25	CBNXM875	CBNXM875T	M12 X 140	25	CBNXM12140	CBNXM121407
M8 X 90	25	CBNXM890	CBNXM890T	M12 X 150	25	CBNXM12150	CBNXM121507
M8 X 100	25	CBNXM8100	CBNXM8100T	M12 X 160	10	CBNXM12160	CBNXM121607
M8 X 110	25	CBNXM8130	CBNXM8130T	M12 X 170	10	CBNXM12170	CBNXM121707
M8 X 130	25	CBNXM8130	CBNXM8130T	M12 X 180	10	CBNXM12180	CBNXM121807
M8 X 140	25	CBNXM8140	CBNXM8140T	M12 X 200	10	CBNXM12200	CBNXM122007
M8 X 150	25	CBNXM8150	CBNXM8150T	M12 X 220	5	CBNXM12220	CBNXM122201
M10 X 40	25	CBNXM1040	CBNXM1040T	M12 X 240	5	CBNXM12240	CBNXM122407
M10 X 50	25	CBNXM1050	CBNXM1050T	M12 X 260	5	CBNXM12260	CBNXM122607
M10 X 60	25	CBNXM1060	CBNXM1060T	M12 X 280	5	CBNXM12280	CBNXM12280T
M10 X 65	25	CBNXM1065	CBNXM1065T	M12 X 300	5	CBNXM12300	CBNXM123007
M10 X 70	25	CBNXM1070	CBNXM1070T	M16 X 50	10	CBNXM1650	CBNXM1650T
M10 X 75	25	CBNXM1075	CBNXM1075T	M16 X 65	10	CBNXM1665	CBNXM1665T
M10 X 80	25	CBNXM1080	CBNXM1080T	M16 X 90	10	CBNXM1690	CBNXM1690T
M10 X 90	25	CBNXM1090	CBNXM1090T	M16 X 100	10	CBNXM16100	CBNXM161007
M10 X 100	25	CBNXM10100	CBNXM10100T	M16 X 110	10	CBNXM16110	CBNXM161107
M10 X 110	25	CBNXM10110	CBNXM10110T	M16 X 130	10	CBNXM16130	CBNXM161301
M10 X 120	25	CBNXM10120	CBNXM10120T	M16 X 150	10	CBNXM16150	CBNXM161501
M10 X 130	25	CBNXM10130	CBNXM10130T	M16 X 180	10	CBNXM16180	CBNXM161801
M10 X 140	25	CBNXM10140	CBNXM10140T	M16 X 200	10	CBNXM16200	CBNXM162007
M10 X 150	25	CBNXM10150	CBNXM10150T	M16 X 220	5	CBNXM16220	CBNXM162207
M10 X 160	25		CBNXM10160T	M16 X 240	5		CBNXM16240T
M10 X 180	10	0 3 m / m / m / m / m / m / m / m / m / m	CBNXM10180T	M16 X 260	5	District Contract of	CBNXM162601
M10 X 190	10	100000000000000000000000000000000000000	CBNXM10190T	M16 X 280	5		CBNXM162807
M10 X 200	10		CBNXM10200T	M16 X 300	5		CBNXM163007
M10 X 220	10		CBNXM10220T	M20 X 130	5	THE TEN NO.	CBNXM201301
M10 X 240	10	The state of the state of	CBNXM10240T	M20 X 180	5		CBNXM201807
A-277-200	40	22,1111,202,40		M20 X 200	5		CBNXM20200

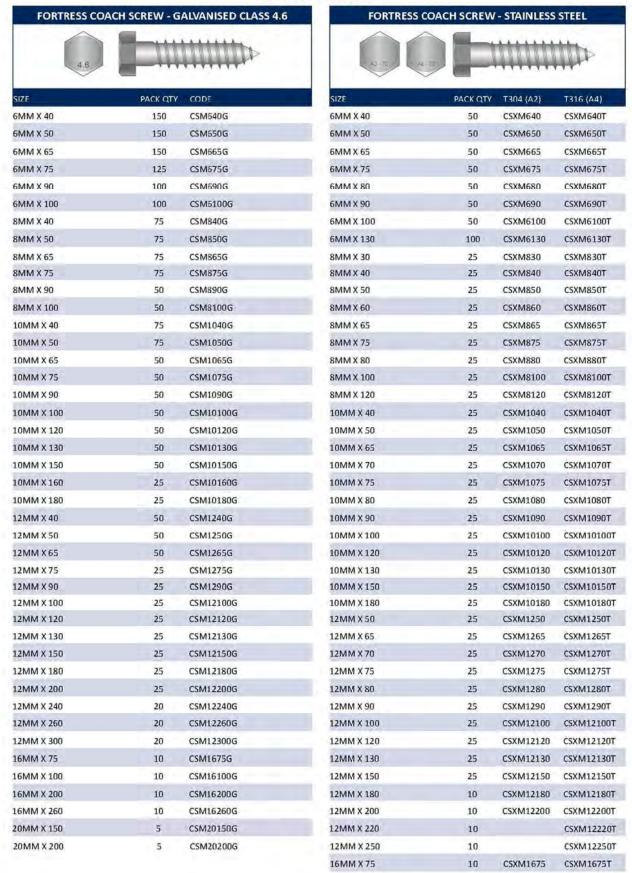
All Stainless Steel stock is subject to availability at time of order.

Tel: 021-22871403



### BOLT & NUT Standard: STEEL COACH SCREWS AS 1393. STAINLESS STEEL COACH SCREWS DIN571

#### COACH SCREWS



16MM X 130

CSXM16130

10

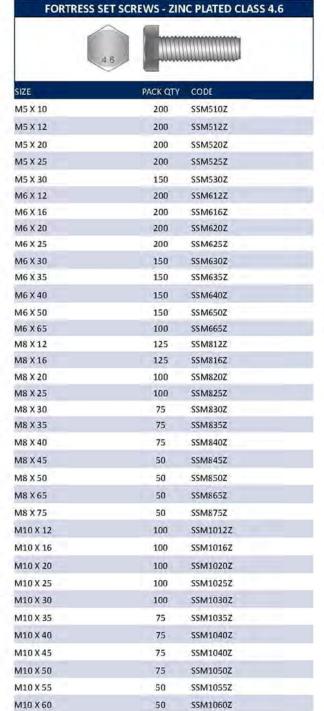
CSXM16130T

Tel: 021-22871403



Standard: 8.8 METRIC COARSE SET SCREWS AS I | 10. METRIC FINE SET SCREWS DIN 933

#### **SET SCREWS**



50

50

50

50

75

75

75

SSM1065Z

SSM1075Z

SSM1090Z

SSM10100Z

SSM1220Z

SSM1225Z

SSM1230Z

M10 X 65

M10 X 75

M10 X 90

M10 X 100

M12 X 20

M12 X 25

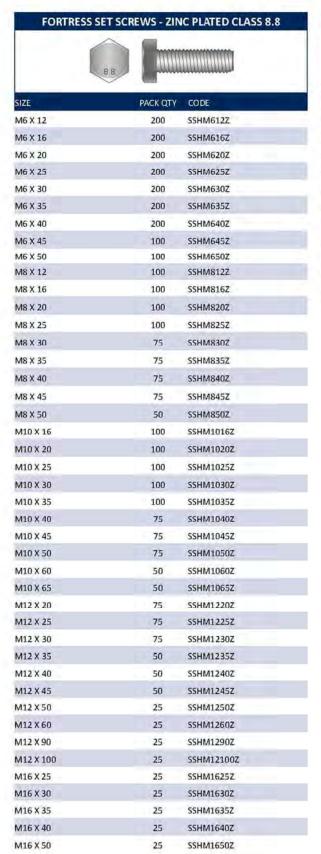
M12 X 30



Tel: 021-22871403



#### BOLT & NUT Standard: ASIIII



1	8.8			
SIZE	PACK QTY	CODE	PITCH	
M8 X 20	100	SSMF820Z	1.00	
M8 X 25	100	SSMF825Z	1.00	
M8 X 35	100	SSMF835Z	1.00	
M8 X 40	100	SSMF840Z	1.00	
M10 X 30	100	SSMF1030Z	1.25	
M10 X 40	100	SSMF1040Z	1.25	
M10 X 50	100	SSMF1050Z	1.25	
M12 X 25	100	SSMF1225Z	1.25	
M12 X 35	100	SSMF1235Z	1.25	
M12 X 40	100	SSMF1240Z	1.25	

M12 X 1.5P SET SCREWS AVAILABLE ON REQUEST

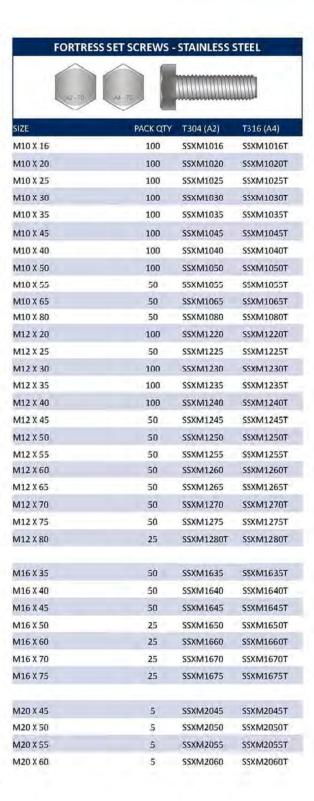
Tel: 021-22871403



BOLT AND NUT Standard: DIN 933

TORTRESS SET SCRE	WS - STAINLESS STEEL
A2 - 70 A4 - 70	

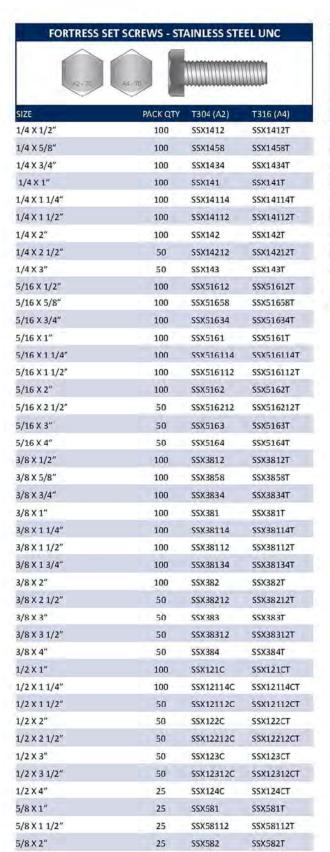
IZE	PACK QTY	T304 (A2)	T316 (A4)
И4 X 20	200	SSXM420	SSXM420T
M4 X 25	200	SSXM425	SSXM425T
И4 X 30	200	SSXM430	SSXM430T
M5 X 8	200	SSXM58	SSXM58T
И5 X 10	200	SSXM510	SSXM510T
VI5 X 12	200	SSXM512	SSXM512T
M5 X 16	200	SSXM516	SSXM516T
M5 X 20	200	SSXM520	SSXM520T
M5 X 25	200	SSXM525	SSXM525T
M5 X 30	100	SSXM530	SSXM530T
И5 X 40	100	SSXM540	SSXM540T
M5 X 50	50	SSXM550	SSXM550T
И6 X 10	200	SSXM610	SSXM610T
M6 X 12	200	SSXM612	SSXM612T
M6 X 16	200	SSXM616	SSXM616T
M6 X 20	200	SSXM620	SSXM620T
M6 X 25	200	SSXM625	SSXM625T
VI6 X 30	200	SSXM630	SSXM630T
M6 X 35	200	SSXM635	SSXM635T
и6 X 40	200	SSXM640	SSXM640T
M6 X 45	100	SSXM645	SSXM645T
M6 X 50	100	SSXM650	SSXM650T
M6 X 60	100	SSXM660	SSXM660T
M6 X 65	100	SSXM665	SSXM66ST
M6 X 70	100	SSXM670	SSXM670T
M6 X 75	100	SSXM675	SSXM675T
VIS X 12	100	SSXM812	SSXM812T
M8 X 16	100	SSXM816	SSXM816T
√18 X 20	100	SSXM820	SSXM820T
VI8 X 25	100	SSXM825	SSXM825T
/18 X 30	100	SSXM830	SSXM830T
VIS X 35	100	SSXM835	SSXM835T
И8 X 40	100	SSXM840	SSXM840T
M8 X 45	100	SSXM845	SSXM845T
//8 X 50	100	SSXM850	SSXM850T
M8 X 55	100	SSXM855	SSXM855T
M8 X 60	100	SSXM860	SSXM860T
//8 X 70	100	SSXM870	SSXM870T
48 X 80	100	SSXM880	SSXM880T
78 X 90	100	SSXM890	SSXM890T



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#### **BOLT & NUT**



FORTRESS SET SCREWS - STAINLESS STEEL UNC				
A2-70 Az-70				
SIZE	PACK QTY	T304 (A2)	T316 (A4)	
5/8 X 2 1/2"	25	SSX58212	SSX58212T	
5/8 X 3"	25	SSX583	SSX583T	
5/8 X 4"	25	SSX584	SSX584T	
3/4×1 1/2"	25	SSX34112	SSX34112T	
3/4 X 1 3/4"	25	SSX34134	SSX34134T	
3/4 × 2"	25	SSX342	SSX342T	
3/4 X 2 1/2"	25	SSX34212	SSX34212T	
3/4 X 3"	20	SSX343	SSX343T	
3/4 × 4"	10	SSX344	SSX344T	

All Stainless Steel stock is subject to availability at time of order

Tel: 021-22871403



#### BOLT & NUT Standard: AS2465

#### **UNC & UNF ENGINEERS BOLT & NUT**



SIZE	PACK QTY	BLACK	ZINC		
1/4 X 1/2"	200	BNC1412B	BNC1412Z		
1/4 X 3/4"	200	BNC1434B	BNC1434Z		
1/4 X 1"	200	BNC141B	BNC141Z		
1/4 X 1 1/4"	200	BNC14114B	BNC14114Z		
1/4 X 1 1/2"	200	BNC14112B	BNC14112Z		
1/4 X 1 3/4"	200	BNC14134B	BNC14134Z		
1/4 X 2"	200	BNC142B	BNC142Z		
1/4 X 2 1/2"	150	BNC14212B	BNC14212Z		
1/4 X 3"	150	BNC143B	BNC143Z		
1/4 X 3 1/2"	150	BNC14312B	BNC14312Z		
1/4 X 4"	150	BNC144B	BNC144Z		
1/4 X 4 1/2"	150	BNC14412B	BNC14412Z		
5/16 X 3/4"	200	BNC51634B	BNC51634Z		
5/16 X 1"	200	BNC5161B	BNC5161Z		
5/16 X 1 1/4"	200	BNC516114B	BNC516114Z		
5/16 X 1 1/2"	200	BNC516112B	BNC5161122		
5/16 X 1 3/4"	150	BNC516134B	BNC516134Z		
5/16 X 2"	150	BNC5162B	BNC5162Z		
5/16 X 2 1/4"	150	BNC516214B	BNC516214Z		
5/16 X 2 1/2"	150	BNC516212B	BNC5162122		
5/16 X 2 3/4"	100	BNC516234B	BNC5162342		
5/16 X 3"	100	BNC5163B	BNC5163Z		
5/16 X 3 1/2"	100	BNC516312B	BNC5163122		
5/16 X 4"	100	BNCS164B	BNC5164Z		
5/16 X 4 1/2"	100	BNC516412B	BNC5164122		
5/16 X 5"	100	BNC5165B	BNC5165Z		
5/16 X 6"	100	BNC5166B	BNC5166Z		
3/8 X 3/4"	200	BNC3834B	BNC3834Z		
3/8 X 1"	200	BNC381B	BNC381Z		
3/8 X 1 1/4"	200	BNC38114B	BNC38114Z		
3/8 X 1 1/2"	150	BNC38112B	BNC38112Z		
3/8 X 1 3/4"	150	BNC38134B	BNC38134Z		
3/8 X 2"	100	BNC382B	BNC382Z		
3/8 X 2 1/4"	100	BNC38214B	BNC38214Z		
3/8 X 2 1/2"	100	BNC38212B	BNC38212Z		
3/8 X 2 3/4"	100	BNC38234B	BNC38234Z		
		- 0.000			
3/8 X 3"	100	BNC383B	BNC383Z		



SIZE	PACK QTY	BLACK	ZINC
3/8 X 3 1/2"	50	BNC38312B	BNC38312Z
3/8 X 4"	50	BNC384B	BNC384Z
3/8 X 4 1/2"	50	BNC38412B	BNC38412Z
3/8 X 5"	50	BNC385B	BNC385Z
3/8 X 5 1/2"	.50	BNC38512B	BNC38512Z
3/8 X 6"	50	BNC386B	BNC386Z
7/16 X 1"	100	BNC7161B	BNC7161Z
7/16 X 1 1/4"	100	BNC716114B	BNC716114Z
7/16 X 1 1/2"	100	BNC716112B	BNC716112Z
7/16 X 1 3/4"	100	BNC716134B	BNC716134Z
7/16 X 2"	100	BNC7162B	BNC7162Z
7/16 X 2 1/4"	75	BNC716214B	BNC716214Z
7/16 X 2 1/2"	75	BNC716212B	BNC716212Z
7/16 X 2 3/4"	75	BNC716234B	BNC716234Z
7/16 X 3"	75	BNC7163B	BNC7163Z
7/16 x 3 1/2"	75	BNC716312B	BNC716312Z
7/16 X 4"	.50	BNC7164B	BNC7164Z
7/16 X 4 1/2"	50	BNC716412B	BNC716412Z
7/16 X 5"	50	BNC7165B	BNC7165Z
7/16 X 5 1/2"	50	BNC716512B	BNC716512Z
7/16 X 6"	50	BNC7166B	BNC7166Z

<sup>\*</sup>Minimum quantities may apply on some Zinc plated bolts.

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#### BOLT AND NUT Standard: AS2465



		Franchistana		
SIZE	PACK QTY	BLACK	ZINC	
1/2 X 3/4"	22	BNC1234	BNC1234Z	
1/2 X 1"	25	BNC121	BNC121Z	
1/2 X 1 1/4"	25	BNC12114	BNC121142	
1/2 X 1 1/2"	25	BNC12112	BNC121122	
1/2 X 1 3/4"	25	BNC12134	BNC121342	
1/2 X 2"	25	BNC122	BNC122Z	
1/2 X 2 1/4"	25	BNC12214	BNC122142	
1/2 X 2 1/2"	25	BNC12212	BNC122122	
1/2 X 2 3/4"	25	BNC12234	BNC122342	
1/2 X 3"	25	BNC123	BNC123Z	
1/2 X 3 1/4"	25	BNC12314	BNC123142	
1/2 X 3 1/2"	25	BNC12312	BNC123122	
1/2 X 3 3/4"	25	BNC12334	BNC123342	
1/2 X 4"	25	BNC124	BNC124Z	
1/2 X 4 1/2"	25	BNC12412	BNC124122	
1/2 X 5"	25	BNC125	BNC125Z	
1/2 X 5 1/2"	25	BNC12512	BNC125122	
1/2 × 6"	25	BNC126	BNC126Z	
1/2 X 6 1/2"	25	BNC12612	BNC126122	
1/2 X 7"	25	BNC127	BNC127Z	
1/2 X 7 1/2"	25	BNC12712	BNC127122	
1/2 X 8"	25	BNC128	BNC128Z	
1/2 X 8 1/2"	25	BNC12812	BNC12812	
3/4 X 1 1/2"	25	BNC34112B	BNC341122	
3/4 X 1 3/4"	25	BNC34134B	BNC341342	
3/4 X 2"	25	BNC342B	BNC342Z	
3/4 X 2 1/4"	25	BNC34214B	BNC342142	
3/4 X 2 1/2"	20	BNC34212B	BNC342122	
3/4 X 2 3/4"	20	BNC34234B	BNC342342	
3/4 X 3"	20	BNC343B	BNC343Z	
3/4 X 3 1/2"	20	BNC34312B	BNC343122	
3/4 × 4"	10	BNC344B	BNC344Z	
3/4 X 4 1/2"	10	BNC34412B	BNC344122	
3/4 X 5"	10	BNC345B	BNC345Z	
3/4 X 5 1/2"	10	BNC34512B	BNC345122	
3/4 × 6"	10	BNC346B	BNC346Z	
3/4 × 6 1/2"	10	BNC34612B	BNC346122	
3/4 X 7"	10	BNC347B	BNC347Z	
3/4 X 7 1/2"	10	BNC34712B	BNC347122	
3/4 X 8"	10	BNC348B	BNC348Z	
3/4 X 9"	5	BNC349B	BNC349Z	



3/4 X 10"	5	BNC3410B	BNC3410Z
7/8 X 2"	10	BNC782B	BNC782Z
7/8 X 2 1/4"	10	BNC78214B	BNC78214Z
7/8 X 2 1/2"	10	BNC78212B	BNC78212Z
7/8 X 3"	10	BNC783B	BNC783Z
7/8 X 3 1/2"	10	BNC78312B	BNC78312Z
7/8 X 4"	10	BNC784B	BNC784Z
7/8 X 4 1/2"	10	BNC78412B	BNC78412Z
7/8 X 5"	10	BNC785B	BNC785Z
7/8 X 5 1/2"	10	BNC78512B	BNC78512Z
7/8 X 6"	10	BNC786B	BNC786Z
7/8 X 6 1/2"	5	BNC78612B	BNC78612Z
7/8 X 7"	5	BNC787B	BNC787Z
7/8 X 8"	5	BNC788B	BNC788Z
7/8 X 9"	5	BNC789B	BNC789Z
7/8 X 10"	5	BNC7810B	BNC7810Z
1 X 2"	5	BNC12B	BNC12Z
1 X 2 1/2"	5	BNC1212B	BNC1212Z
1 X 3"	5	BNC13B	BNC13Z
1 X 3 1/2"	5	BNC1312B	BNC1312Z
1 X 4"	5	BNC14B	BNC14Z
1 X 4 1/2"	5	BNC1412B	BNC1412Z
1 X 5"	5	BNC15B	BNC15Z
1 X 6 1/2"	5	BNC1612B	BNC1612Z
1 X 7"	5	BNC17B	BNC17Z
1 X 7 1/2"	5	BNC1712B	BNC1712Z
1 X 8"	5	BNC18B	BNC18Z
1 X 8 1/2"	5	BNC1812B	BNC1812Z
1 X 9"	5	BNC19B	BNC19Z
1 X 10"	5	BNC110B	BNC110Z
1.1/8 X 3"	5	BNC1183B	BNC1183Z
1.1/8 X 3 1/2"	5	BNC118312B	BNC118312Z
1.1/8 X 4"	5	BNC1184B	BNC1184Z
1.1/8 X 4 1/2"	5	BNC118412B	BNC118412Z
1.1/8 X 5"	5	BNC1185B	BNC1185Z
1.1/8 X 6"	5	BNC1186B	BNC1186Z
1.1/8 X 8"	5	BNC1188B	BNC1188Z
1.1/8 X 9"	5	BNC1189B	BNC1189Z
1.1/8 X 10"	5	BNC11810B	BNC11810Z
1.1/4 × 3"	4	BNC1143B	BNC1143Z
1.1/4 X 3 1/2"	4	BNC114312B	BNC114312Z

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#### **BOLT & NUT**





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#### **BOLT AND NUT**



SIZE	PACK QTY	BLACK	ZINC
1/4 X 3/4"	200	BNF1434B	BNF1434Z
1/4 X 1"	200	BNF141B	BNF141Z
1/4 X 1 1/4"	200	BNF14114B	BNF14114Z
1/4 X 1 1/2"	200	BNF14112B	BNF14112Z
1/4 X 2"	200	BNF142B	BNF142Z
1/4 X 2 1/2"	150	BNF14212B	BNF14212Z
1/4 X 3"	150	BNF143B	BNF143Z
1/4 × 4"	150	BNF144B	BNF144Z
5/16 X 3/4"	200	BNF51634B	BNF51634Z
5/16 X 1"	200	BNF5161B	BNF5161Z
5/16 X 1 1/4"	200	BNF516114B	BNF5161142
5/16 X 1 1/2"	200	BNF516112B	BNF5161122
5/16 X 2"	150	BNF5162B	BNF5162Z
5/16 X 2 1/2"	150	BNF516212B	BNF5162122
5/16 X 3"	100	BNF5163B	BNF5163Z
5/16 X 3 1/2"	100	BNF516312B	BNF5163122
5/16 X 4"	100	BNF5164B	BNF5164Z
5/16 X 6"	100	BNF5166B	BNF5166Z
3/8 X 3/4"	200	BNF3834B	BNF3834Z
3/8 X 1"	200	BNF381B	BNF381Z
3/8 X 1 1/4"	200	BNF38114B	BNF38114Z
3/8 X 1 1/2"	150	BNF38112B	BNF38112Z
3/8 X 1 3/4"	150	BNF38134B	BNF38134Z
3/8 X 2"	100	BNF382B	BNF382Z
3/8 X 2 1/4"	100	BNF38214B	BNF38214Z
3/8 X 2 1/2"	100	BNF38212B	BNF38212Z
3/8 X 3"	100	BNF383B	BNF383Z
3/8 X 3 1/2"	50	BNF38312B	BNF38312Z
3/8 X 4"	50	BNF384B	BNF384Z
3/8 X 4 1/2"	50	BNF38412B	BNF38412Z
3/8 X 5"	50	BNF385B	BNF385Z
7/16 X 1"	100	BNF7161B	BNF7161Z
7/16 X 1 1/4"	100	BNF716114B	BNF716114Z
7/16 X 1 1/2"	100	BNF716112B	BNF7161122
7/16 X 2"	100	BNF7162B	BNF7162Z
7/16 X 2 1/2"	75	BNF716212B	BNF716212Z
7/16 X 3"	75	BNF7163B	BNF7163Z
7/16 X 3 1/2"	75	BNF716312B	BNF716312Z
7/16 X 4"	50	BNF7164B	BNF7164Z
7/16 X 4 1/2"	50	BNF716412B	BNF716412Z
7/16 X 5"	50	BNF7165B	BNF7165Z

(1)				
SIZE	PACK QTY	BLACK	ZINC	
1/2 X 3/4"	75	BNF1234B	BNF1234Z	
1/2 X 1"	75	BNF121B	BNF121Z	
1/2 X 1 1/4"	75	BNF12114B	BNF12114Z	
1/2 X 1 1/2"	75	BNF12112B	BNF12112Z	
1/2 X 1 3/4"	75	BNF12134B	BNF12134Z	
1/2 X 2"	50	BNF122B	BNF122Z	
1/2 X 2 1/4"	50	BNF12214B	BNF12214Z	
1/2 X 2 1/2"	50	BNF12214B	BNF12214Z	
1/2 X 2 3/4"	50	BNF12234B	BNF12234Z	
1/2 X 3"	25	BNF123B	BNF123Z	
1/2 X 3 1/2"	25	BNF12312B	BNF12312Z	
1/2 X 4"	25	BNF124B	BNF124Z	
1/2 X 4 1/2"	25	BNF12412B	BNF12412Z	
./2 X 5"	25	BNF125B	BNF125Z	
/2 X 5 1/2"	25	BNF12512B	BNF12512Z	
/2 X 6"	25	BNF126B	BNF126Z	
1/2 X 6 1/2"	20	BNF12612B	BNF12612Z	
/2 X 7"	20	BNF127B	BNF127Z	
/2 X 8"	20	BNF128B	BNF128Z	
0/16 X 1 1/2"	25	BNF916112B	BNF916112	
9/16 X 2"	25	BNF9162B	BNF9162Z	
0/16 X 2 1/2"	25	BNF916212B	BNF9162122	
0/16 X 3"	25	BNF9163B	BNF9163Z	
0/16 X 3 1/2"	25	BNF916312B	BNF9163122	
0/16 X 4"	25	BNF9164B	BNF9164Z	
5/8 X 1"	25	BNF581B	BNF581Z	
5/8 X 1 1/4"	25	BNF58114B	BNF58114Z	
5/8 X 1 1/2"	25	BNF58112B	BNF58112Z	
5/8 X 1 3/4"	25	BNF58134B	BNF58134Z	
5/8 X 2"	25	BNF582B	BNF582Z	
5/8 X 2 1/4"	25	BNF58214B	BNF58214Z	
5/8 X 2 1/2"	25	BNF58212B	BNF58212Z	
5/8 X 2 3/4"	25	BNF58234B	BNF58234Z	
5/8 X 3"	25	BNF583B	BNF583Z	
5/8 X 3 1/2"	25	BNF58312B	BNF58312Z	
5/8 X 4"	25	BNF584B	BNF584Z	
5/8 X 4 1/2"	15	BNF58412B	BNF58412Z	
5/8 X 5"	15	BNF585B	BNF585Z	
5/8 X 5 1/2"	15	BNF58512B	BNF58512Z	
5/8 X 6"	15	BNF586B	BNF586Z	

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M20 X 80

M20 X 90

M20 X 100

M20 X 110

M20 X 120

M20 X 130



BOLT & NUT Standard: AS 1252 - 1983 DIMENSIONS & AS 1252 - 1996 MECHANICAL PROPERTIES

#### STRUCTURAL FASTENERS

#### FORTRESS HSFG BOLT/NUT/WASHER CLASS 8.8 - GALVANISED FORTRESS HSFG BOLT/NUT/WASHER CLASS 8.8 - GALVANISED SIZE PACK OTY SIZE PACK QTY CODE M16 X 40 EACH BNHSFGM1640G M20 X 150 EACH BNHSFGM20150G M16 X 45 EACH BNHSFGM1645G M20 X 200 EACH BNHSFGM20200G M16 X 50 **EACH** BNHSFGM1650G M24 X 50 **EACH** BNHSFGM2450G M24 X 55 M16 X 55 EACH BNHSFGM1655G EACH BNHSFGM2455G M16 X 60 EACH BNHSFGM1660G M24 X 60 EACH BNHSFGM2460G M16 X 65 EACH BNHSFGM1665G M24 X 65 EACH BNHSFGM2465G M16 X 70 EACH BNHSFGM1670G M24 X 70 EACH BNHSFGM2470G M16 X 75 EACH BNHSFGM1675G M24 X 75 EACH BNHSFGM2475G M16 X 80 EACH BNHSFGM1680G M24 X 80 EACH BNHSFGM2480G M16 X 90 **EACH** BNHSFGM1690G M24 X 85 EACH BNHSFGM2485G M16 X 100 EACH BNHSFGM16100G M24 X 90 EACH BNHSFGM2490G EACH BNHSFGM16110G M24 X 100 BNHSFGM24100G M16 X 110 EACH M16 X 120 **EACH** BNHSFGM16120G M24 X 110 **EACH** BNHSFGM24110G M16 X 130 EACH BNHSFGM16130G M24 X 120 EACH BNHSFGM24120G EACH M16 X 140 BNHSFGM16140G M24 X 130 EACH BNHSFGM24130G M16 X 150 EACH BNHSFGM16150G M24 X 150 EACH BNHSFGM24150G M16 X 180 EACH BNHSFGM16180G M24 X 160 EACH BNHSFGM24160G M16 X 200 BNHSFGM24180G **EACH** BNHSFGM16200G M24 X 180 **EACH** M20 X 40 EACH BNHSFGM2040G M30 X 75 EACH BNHSFGM3075G M20 X 45 EACH BNHSFGM2045G M30 X 80 EACH BNHSFGM3080G BNHSFGM2050G BNHSFGM3090G M20 X 50 EACH M30 X 90 EACH **EACH** M20 X 55 BNHSFGM2055G M30 X 100 **EACH** BNHSFGM30100G M20 X 60 EACH BNHSFGM2060G M30 X 110 EACH BNHSFGM30110G M20 X 65 EACH BNHSFGM2065G M30 X 120 EACH BNHSFGM30120G M20 X 70 EACH BNHSFGM2070G M30 X 130 EACH BNHSFGM30130G

BNHSFGM2080G

BNHSFGM2009G

BNHSFGM20100G

BNHSFGM20110G

BNHSFGM20120G

BNHSFGM20130G

EACH

EACH

EACH

EACH

**EACH** 

EACH



M30 X 150

M36 X 100

M36 X 120

M36 X 130

M36 X 140

M36 X 90

EACH

EACH

EACH

EACH

**EACH** 

EACH

BNHSFGM30150G

BNHSFGM3690G

BNHSFGM36100G

BNHSFGM36120G

BNHSFGM36130G

BNHSFGM36140G

<sup>\*</sup>Different sizes available on request. Test certificates also available.

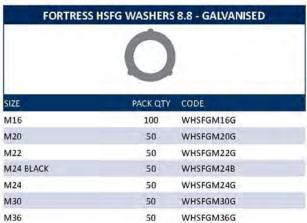
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#### **BOLT AND NUT**

Standard: AS 1252 - 1983 DIMENSIONS & AS 1252 - 1996 MECHANICAL PROPERTIES

#### **FORTRESS HSFG NUTS 8.8 - GALVANISED** SIZE CODE M16 50 NHSFGM16G M20 NHSFGM20G 50 M22 25 NHSFGM22G M24 25 NHSFGM24G M30 25 NHSFGM30G M36 25 NHSFGM36G









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#### BOLT & NUT Technical Info

SPECIFICATION SHEET

## Steel Hex Head Bolt & Nut

**BOLTS MANUFACTURED TO: AS 1111 METRIC SERIES 4.6** 

: AS 1110 METRIC SERIES 8.8

NUTS MANUFACTURED TO: AS 1112 METRIC SERIES 8.8









SIZE	PITCH	AF	TH	READ LENGTH (NOMINAL)	
	Distance between threads(mm)	Head Diameter (mm)	Up to 125mm	Over 125 to 20mm	Over 200mm
M6	1.00mm	10mm	18mm	24mm	
M8	1.25mm	13mm	22mm	28mm	
M10	1.50mm	16mm	26mm	32mm	45mm
M12	1.75mm	18mm	30mm	36mm	49mm
M16	2.00mm	24mm	38mm	44mm	57mm
M20	2.50mm	30mm	46mm	52mm	65mm
M24	3.00mm	36mm	54mm	60mm	73mm

RECOMI	MENDED TIGHTENING	TORQUE
SIZE	CLASS 4.6	CLASS 8.8
M6	3.5 Nm	9 Nm
M8	8.5 Nm	22 Nm
M10	17 Nm	44 Nm
M12	30 Nm	77 Nm
M16	73 Nm	190 Nm
M20	143 Nm	370 Nm
M24	248 Nm	640 Nm

SIZE	CLASS 4.6	CLASS 8.8
M6	8.0 kN	16.1 kN
M8	14.6 kN	29.2 kN
M10	23.2 kN	46.4 kN
M12	33.7 kN	67.4 kN
M16	62.8 kN	125.0 kN
M20	98.0 kN	203.0 kN
M24	141.0 kN	293.0 kN

Tel: 021-22871403

SPECIFICATION SHEET



#### BOLT AND NUT Technical Info

# Steel Hex Head Bolt & Nut UNIFIED NATIONAL FINE & COURSE

MANUFACTURED TO AS 2465 BOLTS: DIMENSIONS TO ANSI/ASME B18.2.1 NUTS: DIMENSIONS TO ANSI/ASME B18.2.2





SIZE	THREADS PER INCH (TPI )  UNF UNC		ACROSS FLATS ( AF )
			HEAD DIAMETER - INCH
1/4"	28	20	0.438
1/4" 5/16"	24	18	0.500
3/8"	24	16	0.562
7/16"	20	14	0.625
1/2"	20	13	0.750
9/16"	18	12	0.875
5/8" 3/4"	18	11	0.938
3/4"	16	10	1.125

	RECOMMENDED TIGHTENING TORQUE			
	SIZE	UNF	UNC	
GRADE 5	1/4"	11 Nm	9 Nm	
	5/16"	23 Nm	20 Nm	
	3/8"	40 Nm	36 Nm	
	7/16"	65 Nm	58 Nm	
GRADE 8	1/2"	141 Nm	124 Nm	
	5/8"	280 Nm	247 Nm	
	3/4"	491 Nm	440 Nm	

	BREAKING LOAD OF BOLT ( MINIMUM )			
	SIZE	UNF	UNC	
GRADE 5	1/4"	19 kN	17 kN	
	5/16"	31 kN	28 kN	
	3/8"	46 kN	41 kN	
	7/16"	63 kN	57 kN	
GRADE 8	1/2"	107 kN	85 kN	
	5/8"	171 kN	137 kN	
	3/4"	249 kN	199 kN	

Tel: 021-22871403



#### BOLT & NUT Technical Info

#### SPECIFICATION SHEET

### Stainless Steel Hex Head Bolt/nut - Set Screws METRIC COURSE

**BOLTS MANUFACTURED TO: AS 1111 METRIC SERIES 4.6** 

: AS 1110 METRIC SERIES 8.8

NUTS MANUFACTURED TO: AS 1112 METRIC SERIES 8.8



SIZE	PITCH	AF
	Distance between threads(mm)	Head Diameter (mm)
M6	1.00mm	10mm
M8	1.25mm	13mm
M10	1.50mm	16mm
M12	1.75mm	18mm
M16	2.00mm	24mm
M20	2.50mm	30mm
M24	3.00mm	36mm

CHEMICAL TYPIC	CAL COMPOSITION
T304 (A2)	T316
CHROMIUM 18%	CHROMIUM 18%
NICKEL 18%	NICKEL 18%
	MOLYBDENUM 2.2%

RECOMMEND	ED TIGHTENING TORQUE
SIZE	
M6	7.0 Nm
M8	18 Nm
M10	35 Nm
M12	60 Nm
M16	152 Nm
M20	295 Nm

BREAKING LOAD OF BOLT (minimum)		
M6	9.0 kN	
M8	17 kN	
M10	26 kN	
M12	37 kN	
M16	70 kN	
M20	110 kN	

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#### BOLT AND NUT Technical Info

#### SPECIFICATION SHEET

### High Strength Friction Grip

Bolts, Nuts and Washers

Manufactured to AS 1252 - 1983 Dimensions

AS 1252 - 1996 Mechcanical Properties

Material: Class 8.8 High Tensile





BOLT & NUT	AF (MM)		HARDNESS	
M16	27MM	BOLT & NUT	23 - 36	HRC
M20	32MM	WASHER	26 - 45	HRC
M24	41MM			
M30	50MM	BOLT TENSILE	830 MPA	
M36	60MM			

Batch Sample Test Certification Reports available on request Detailed Specifications for AS 1252 available on request

Durability

Hot Dipped Galvanised - 98% Zinc - 45 Microns Bolt/Nut to AS 1214 Washer to AS 1650

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#### BOLT & NUT Technical Info



HEAD DIAMETER	AF (MM)	PILOT HOLE DIA	METER
SCREW SIZE	HEAD AF	SCREW SIZE	DRILL DIA
M6	10MM	M6	4.0 - 4.5MM
M8	13MM	M8	5.0 - 6.0MM
M10	16MM	M10	6.5 - 7.5MM
M12	18MM	M12	8.0 - 9.0MM
M16	24MM	M16	12.0 - 13.0MM
M20	30MM	M20	15.0 - 16.0MM
	TENSILE STRENGT	TH - 400 MPa	_

Durability
Hot Dipped Galvanised - 98% Zinc - 45 Microns

Typical Life - 25-50 Years

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### BOLT AND NUT Technical Info

# SPECIFICATION SHEET Stainless Steel Coach Screws Manufactured to Din 571

HEAD DIAMETER	AF (MM)	PILOT HOLE DIAMETER	
SCREW SIZE	HEAD AF	SCREW SIZE	DRILL DIA
M6	10MM	M6	4.0 - 4.5MM
M8	13MM	M8	5.0 - 6.0MM
M10	16MM	M10	6.5 - 7.5MM
M12	18MM	M12	8.0 - 9.0MM
M16	24MM	M16	12.0 - 13.0MM
M20	30MM	M20	15.0 - 16.0MM
	TENCH F STRENGT	FUL 700 L4D	

TENSILE STRENGTH - 700 MPa

TYPICAL CHEMIC	CAL COMPOSITION
T304 (A2)	T316 (A4)
CHROMIUM 18%	CHROMIUM 18%
NICKEL 8%	NICKEL 8%
	MOLYBDENUM 2.2%

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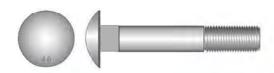


#### BOLT & NUT Technical Info

SPECIFICATION SHEET

# Steel Coach Bolt & Nut

MANUFACTURED TO: AS 1390 METRIC SERIES 4.6



SIZE	PITCH	AF	TH	READ LENGTH (NOMIN	AL)
	Distance between threads(mm)	Of Square Neck (mm)	Up to 125mm	Over 125 to 20mm	Over 200mm
M6	1.00mm	10mm	18mm	24mm	
M8	1.25mm	13mm	22mm	28mm	
M10	1.50mm	16mm	26mm	32mm	45mm
M12	1.75mm	18mm	30mm	36mm	49mm
M16	2.00mm	24mm	38mm	44mm	57mm
M20	2.50mm	30mm	46mm	52mm	65mm

	ING LOAD OF BOLT
SIZE	CLASS 4.6
M6	8.0 kN
M8	14.6 kN
M10	23.2 kN
M12	33.7 kN
M16	62.8 kN
M20	98.0 kN
M24	141.0 kN

TENSILE STRENGTH ( MINIMUM )	
400 MPa	

#### Durability

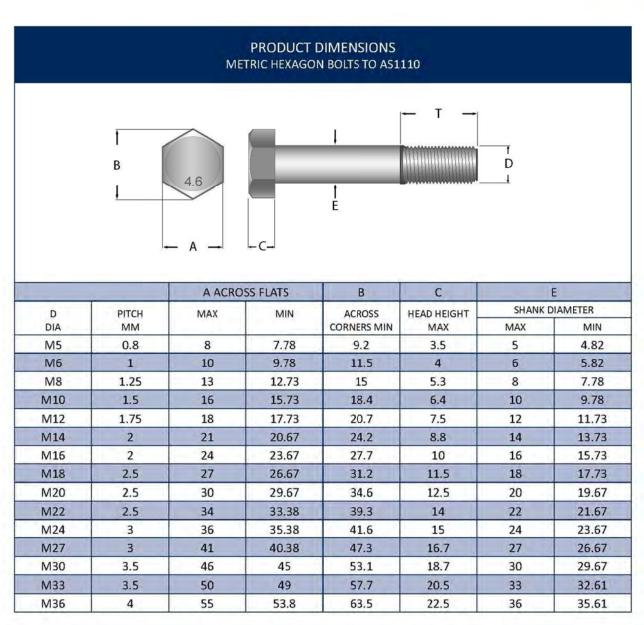
Bright Zinc: 3-5 Microns Recommended for indoor use only

Hot Dipped Galvanised - 98% Zinc - 45 Microns

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#### BOLT AND NUT Technical Info

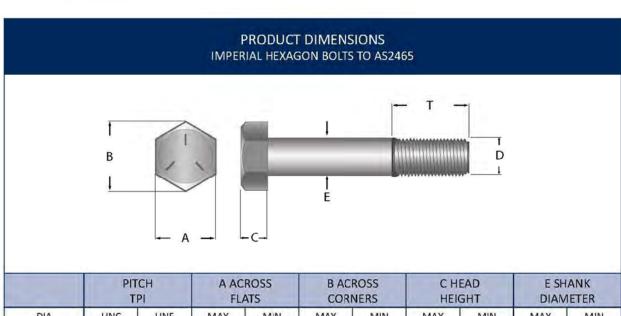


NOMINAL THREAD LENG	THS FOR HEXAGON BOLTS	
NOMINAL LENGTH OF BOLT	THREAD LENGTH (T)	
UP TO 25mm	Thread = 2D + 6mm	
OVER 125MM, UP TO 200mm	Thread = 2D + 12mm	
OVER 200mm	Thread = 2D + 25mm	
	**WHERE D IS THE DIAMETER	

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#### BOLT & NUT Technical Info



	PITCH TPI		A ACROSS FLATS		B ACROSS CORNERS		C HEAD HEIGHT		E SHANK DIAMETER	
DIA	UNC	UNF	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1/4"	20	28	0.438	0.428	0.505	0.488	0.163	0.15	0.25	0.245
5/16"	18	24	0.5	0.489	0.577	0.557	0.211	0.195	0.313	0.306
3/8"	16	24	0.562	0.551	0.65	0.628	0.234	0.226	0.375	0.369
7/16"	14	20	0.625	0.612	0.722	0.698	0.291	0.272	0.438	0.43
1/2"	13	20	0.75	0.736	0.866	0.84	0.323	0.302	0.5	0.493
9/16"	12	18	0.812	0.798	0.938	0.91	0.371	0.348	0.563	0.554
5/8"	11	18	0.938	0.922	1.083	1.051	0.403	0.378	0.625	0.617
3/4"	10	16	1.125	1.100	1.299	1.254	0.483	0.455	0.75	0.741
7/8"	9	14	1.312	1.285	1.516	1.465	0.563	0.531	0.875	0.866
1"	8	12	1.5	1.469	1.732	1.675	0.627	0.591	1	0.99
1.1/8"	7	12	1.688	1.631	1.949	1.859	0.718	0.658	1.125	1.114
1.1/4"	7	12	1.875	1.812	2.165	2.066	0.813	0.749	1.25	1.239
1.3/8"	6	12	2.062	1.994	2.382	2.273	0.878	0.81	1.375	1.363
1.1/2"	6	12	2.25	2.175	2.598	2.48	0.974	0.902	1.5	1.488
1.3/4"	5		2.625	2.538	3.031	2.893	1.134	1.054	1.75	1.738
2"	4.5		3	2.9	3.464	3.306	1.263	1.175	2	1.988

NOMINAL LENGTH OF BOLT	THREAD LENGTH (T)
UP TP 6"	Thread = 2D + 1/4"
OVER 6"	Thread = 2D + 1/2"
	**WHERE D IS THE DIAMETER

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BOLT AND NUT Technical Info

PROOF LOADS AND TENSILE STRESS FOR METRIC HEXAGON BOLTS TO AS 1110 CLASS 4.6 & CLASS8.8							
		CLASS 4.6	TO AS 111	CLASS 8.8 TO AS 1110			
DIA	TENSILE STRESS AREA mm2	PROOF LOAD kN	TENSILE LOAD kN min	PROOF LOAD kN	TENSILE LOAD		
M5	14.2	3.20	5.68	8.23	11.35		
M6	20.1	4.52	8.04	11.6	16.1		
M8	36.6	8.24	14.6	21.2	29.2		
M10	58.0	13.0	23.2	33.7	46.4		
M12	84.3	19.0	33.7	48.9	67.4		
M14	115	25.9	46.0	66.7	92.0		
M16	157	35.3	62.8	91	125		
M18	192	43.2	76.8	115	159		
M20	245	55.1	98.0	147	203		
M22	303	68.2	121	182	252		
M24	353	79.4	141	212	293		
M27	459	103	184	275	381		
M30	561	126	224	337	466		
M33	694	156	278	416	576		

	FOR		LOADS AND TE GON BOLTS TO AS	NSILE STRESS 2465 GRADE 5 & 0	GRADE 8		
UNC THREADS				UNF THREADS			
DIA	TENSILE STRESS AREA in2	PROOF LOAD	TENSILE LOAD Ibf min	TENSILE STRESS AREA in2	PROOF LOAD lbf	TENSILE LOAD	
			GRADE 5				
1/4"	0.0318	2,700	3,800	0.0364	3,100	4,350	
5/16"	0.0524	4,450	6,300	0.058	4,900	6,950	
3/8"	0.0775	6,600	9,300	0.0878	7,450	10,500	
7/16	0.1063	9,050	12,800	0.1187	10,100	14,200	
			GRADE 8				
1/2"	0.1419	17,000	21,300	0.1599	19,200	24,000	
5/8"	0.2260	27,100	33,900	0.256	30,700	38,400	
3/4"	0.3340	40,100	50,100	0.373	44,800	56,000	
7/8"	0.4620	55,400	69,300	0.509	61,100	76,400	
1"	0.6060	72,700	90,900	0.663	79,600	99,400	
1.1/8"	0.7630	91,600	114,400	0.856	102,700	128,400	
1.1/4"	0.9690	116,300	145,400	1.073	128,800	161,000	
1.1/2"	1.4050	168,600	210,800	1.581	189,700	237,000	