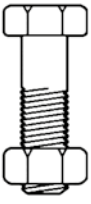
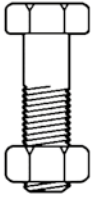
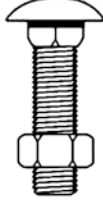
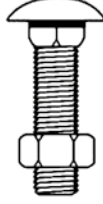
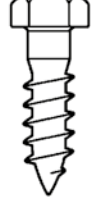
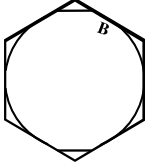
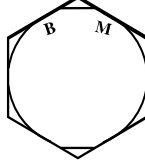
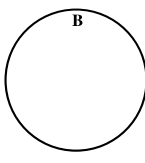
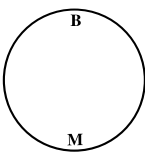
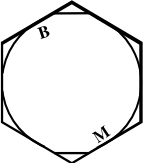
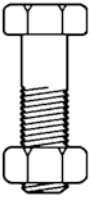
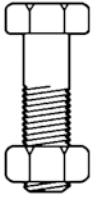
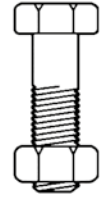
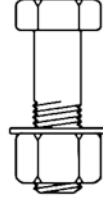
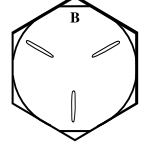
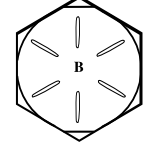
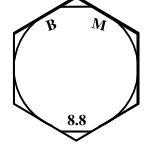
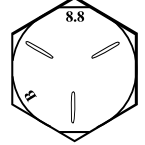


FASTENER GRADES & MARKINGS

Product Group	BSW Hex Bolt and Nut	Metric Hex Bolt and Nut	BSW Cup Head Bolt and Nut	Metric Cup Head Bolt and Nut	Metric Coach Screw	
						
Mild Steel Commercial	Grade 2	Class 4.6	Grade 2	Class 4.6	Class 4.6	
Product Specification	AS2451-1998	AS1111-2000 (Bolt) AS1112-2000 (Nut)	ASB108-1952 (Bolt) AS2451-1998 (Nut)	AS1390-1997 (Bolt) AS1112-2000 (Nut)	AS1393-1996	
Nominal Strengths						
	Tensile	63,000 lb/in ²	400MPa	58,000 lb/in ²	400MPa	400MPa
Bolt	Yield	36,000 lb/in ²	240MPa		240MPa	240MPa
	Proof		225MPa		225MPa	225MPa
Nut	Proof	63,000 lb/in ²	520-630MPa*	63,000 lb/in ²	520-630MPa*	
Grade Marking						

*See Nut Property Class Table Below

Product Group	UNC/UNF High Tensile Bolt and Nut	UNC/UNF High Tensile Bolt and Nut	Metric High Tensile Bolt and Nut	Metric Structural Bolt and Nut	
					
	Grade 5	Grade 8	Class 8.8	Class 8.8	
Product Specification	AS2465-1999	AS2465-1999	AS1110-2000 (Bolt) AS1112-2000 (Nut)	AS1252-1983	
Nominal Strengths					
Bolt	Tensile	105,000-120,000 lb/in ²	150,000 lb/in ²	800MPa	800MPa
	Yield	81,000-92,000 lb/in ²	130,000 lb/in ²	640MPa	640MPa
	Proof	74,000-85,000 lb/in ²	120,000 lb/in ²	580MPa	600MPa
Nut	Proof	UNC 120,000 lb/in ² UNF 109,000 lb/in ²	150,000 lb/in ²	800-920MPa*	1165MPa
Grade Marking					

*See Nut Property Class Table Below

Thread		Nut Property Class		
Greater Than	Less Than or Equal To	5	8	8
		Style 1	Style 1	Style 2
		Stress Under Proof Load	Stress Under Proof Load	Stress Under Proof Load
-	M4	520 MPa	800 MPa	-
M4	M7	580 MPa	855 MPa	-
M7	M10	590 MPa	870 MPa	-
M10	M16	610 MPa	880 MPa	-
M16	M39	630 MPa	920 MPa	890 MPa