



### Screw Gauges

Screw Diameter	mm	Nail Diameter	mm
4G	2.8	10G	3.2
5G	3.2	12G	2.8
6G	3.5	14G	2.0
7G	3.8	16G	1.6
8G	4.1		
9G	4.4		
10G	4.7		
12G	5.5		
14G	6.3		

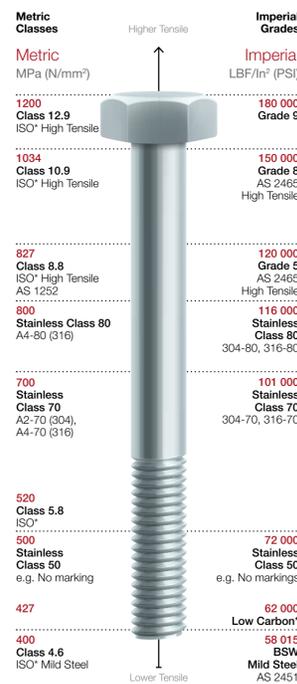
### Imperial Threads per Inch

Diameter (inches)	Threads per inch (TPI)			
	BSW	UNC	UNF	BSF
1/8"	40	40		
5/32"	32	32		
3/16"	24	24	32	32
1/4"	20	20	28	26
5/16"	18	18	24	22
3/8"	16	16	24	20
7/16"	14	14	20	18
1/2"	12	13	20	16
5/8"	11	11	18	14
3/4"	10	10	16	12
7/8"	9	9	14	11
1"	8	8	12	10
1 1/8"	7	7	12	9
1 1/4"	7	7	12	9
1 1/2"	6	6	12	8

### Metric Thread Forms and Pitch

Metric Diameter (mm)	Pitch (mm)	
	Coarse (standard)	Fine
2	0.40	
2.5	0.45	
3	0.50	0.35
4	0.70	0.50
5	0.80	0.75
6	1.00	0.75
8	1.25	1.00
10	1.50	1.00, 1.25
12	1.75	1.25, 1.50
14	2.00	1.50
16	2.00	1.50
18	2.50	1.50
20	2.50	1.50, 2.00
22	2.50	1.50
24	3.00	1.50, 2.00
27	3.00	1.50, 2.00
30	3.50	1.50, 2.00
33	3.50	2.00
36	4.00	1.50, 2.00
39	4.00	1.50, 2.00
42	4.50	2.00

### Class and Grade Tensile Strength Comparison



Conversion Factor  
1000 PSI (lbf/in<sup>2</sup>) = 6.8948 MPa  
1 MPa = 145.038 PSI (lbf/in<sup>2</sup>)

### Anchors

**Chem Set Stud**  
**Hollow Wall Anchor**  
**Drop In Anchor Standard**  
**Drop In Anchor Lipped**  
**Nylon Plug**  
**Nylon Pin Anchor Mushroom Head**  
**Countersunk Screw Bolt**  
**Plasterboard Anchor**  
**C Hook Sleeve Anchor**  
**Hex Sleeve Anchor**  
**Split Drive Anchor Countersunk**  
**Threaded Rod Anchor Steel Horizontal**  
**Threaded Rod Anchor Timber Horizontal**  
**Threaded Rod Anchor Concrete Vertical**

**Hollow Wall Anchor**  
**Drop In Anchor Lipped**  
**Metal Pin Anchor**  
**Nylon Pin Anchor Round Head**  
**Hex Flanged Screw Bolt**  
**Eye Screw Bolt**  
**O Hook Sleeve Anchor**  
**CSK Sleeve Anchor**  
**Split Drive Anchor Mushroom Head**  
**Threaded Rod Anchor Steel Vertical**  
**Threaded Rod Anchor Timber Vertical**  
**Through Bolt**  
**The Thin Wall Bolt**

**Chemical Adhesive Seismic Pure Epoxy Resin**  
**Chemical Adhesive Seismic Hybrid Bonded**  
**Chemical Adhesive Seismic Polyester Resin Styrene Free**  
**Rawplug Multi Dispense Gun**

**New Products**  
NEW products are often added to the Milsons range. Please visit our website for up to date information.

### Seismic/ETA Anchors

**Screw Bolt Seismic/ETA Hex Flanged**  
**Screw Bolt Seismic/ETA Countersunk**  
**Through Bolts Seismic**  
**Rod Hanger Seismic Concrete - Vertical**  
**Chemical Adhesive Seismic Hybrid Bonded**  
**Chemical Adhesive Seismic Polyester Resin Styrene Free**  
**Rawplug Multi Dispense Gun**

### Screws

**Decking Screw CSK Flush Head - T 17**  
**Decking Screw CSK - Ribbed**  
**Bugle Batten Screw Knurled Shank T17 - Ribbed**  
**12kN Kit**  
**12kN Retro Kit**  
**6kN Kit**  
**Coach Bolt & Nut**  
**Coach Screw**  
**Hex Bolts & Nut Torx Half Thread**  
**Hex Bolt & Nut Metric Imperial**  
**Hex Bolt & Nut Metric Fine**  
**Grub Screw Metric Imperial**  
**Grub Screw Metric Fine**  
**Shoulder Screw Metric Imperial**  
**Stud Bar & Nut Metric Imperial**  
**Stud Bar & Nut Metric Fine**

**Decking Screw CSK - Ribbed**  
**Surefast Screw CSK - Ribbed**  
**Surefast Screw Square**  
**Levelling Timber Screw Countersunk Torx**  
**Jolt Screw Torx T15**  
**Blue Purlin Screw Countersunk**  
**Multi Screw Pan Head Square**  
**Self Drilling Screw Hex Washer Face Neo**  
**Hex Washer Face Self Drilling Steel**  
**Hex Washer Face Neo Self Tapping Timber**  
**Self Drilling Screw Pan Head**  
**Self Drilling Screw Water Head**  
**Self Drilling Screw Wing Tek**  
**Self Tapping Screw Pan Head Type 17**  
**Self Tapping Screw Pan Head**  
**Self Tapping Screw Wing Tek**  
**Self Tapping Screw Countersunk/Type 17**  
**Self Tapping Screw Patching Button**  
**Self Tapping Screw Water Head Type 17**  
**Gypsum Screw Self Drilling Timber Bugle**  
**Gypsum Screw Self Drilling Steel Bugle**  
**Machine Screw Countersunk**  
**Machine Screw Pan Head**  
**Rivets**  
**Large Flange Rivet**  
**Dome Head Rivet**

**Key to Finishes**  
SUS 316, SUS 304, SUS 410, Galvanneal, Black, Y Zinc, Emetal, Blue Ruspert, Brass, Zinc, Zinc Flake, Zinc Nickel, Alu/Steel, Self

### Builders Hardware

**12kN Kit**  
**12kN Retro Kit**  
**6kN Kit**  
**Bracing Bracket Kit with Screws & with Screw Bolts & Screws**  
**Concealed Purlin Cleat**  
**Sheet Bracing Strap**  
**Ceiling Tie**  
**Girt Plate**  
**Multi Grip**  
**Nail on Plate**  
**Joist Hanger**  
**Z and C Nail**  
**Panel Shims Plastic**  
**H-Packers Plastic**

### Bolts

**Coach Bolt & Nut**  
**Coach Screw**  
**Hex Bolts & Nut Torx Half Thread**  
**Hex Bolt & Nut Metric Imperial**  
**Hex Bolt & Nut Metric Fine**  
**Grub Screw Metric Imperial**  
**Grub Screw Metric Fine**  
**Shoulder Screw Metric Imperial**  
**Stud Bar & Nut Metric Imperial**  
**Stud Bar & Nut Metric Fine**

### Socket Head

**Button Head Screw**  
**Countersunk Screw Metric Imperial**  
**Cap Screw Metric Imperial**  
**Cap Screw Metric Fine**  
**Low Head Cap Screw**  
**Pressure Plug**  
**Wing Nut Metric Imperial**  
**Wing Nut Metric Fine**

### Nuts

**Barrel Nut**  
**Cone Lock Nut**  
**Fuji Lock Nut**  
**Hex Nut Metric Imperial**  
**Hex Nut Metric Fine**  
**Serrated Flange Nut Metric**  
**Nyloc Nut Metric Imperial**  
**Strut Nut Long Spring**  
**Strut Nut Short Spring**  
**Strut Nut**  
**Wedge Nut**  
**Wing Nut Metric Imperial**  
**Wing Nut Metric Fine**

### Washers

**Belleville Washer**  
**Cup Washer**  
**External Tooth Lock Washer**  
**Internal Tooth Lock Washer**  
**Wedge Lock Washer**  
**Round Washers Fender, Heavy & Light**  
**Bonded Roofing Seal Washer EPDM & Aluminium**  
**Hardened Washer**  
**Neoprene Washers**  
**Square Washer**  
**Square Washer**

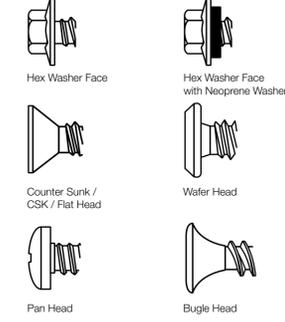
### Stainless Hardware

**Bow Shackle**  
**Collared Eye Bolt**  
**D Ring**  
**D Shackle Long**  
**D Shackle Short**  
**Eye Bolts With Nut & Washer**  
**Eye Nut**  
**Mame Swivel Double Block**  
**S Hook**  
**Screw Eye**  
**Spring Hook With Eylet**  
**Square Eye Plate**  
**Swage Eye Terminal**  
**Swivel Terminal**  
**Swivel Jaw & Jaw**  
**Turnbuckle Hook & Eye**  
**Turnbuckle Jaw & Jaw**  
**Turnbuckle Jaw & Terminal**  
**U Bolt Nut & Washer**  
**Wire Eye Strap**  
**Wire Rope Grip**  
**Wire Rope Thimble**  
**Round Ring**

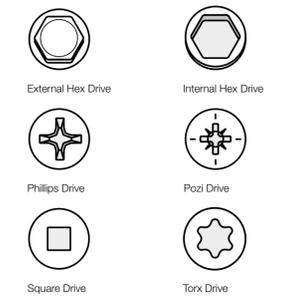
### Tools & Accessories

**Annular Cutters**  
**Drill Bits**  
**Masonry Drill Bits**  
**Impact Driver Bits**  
**Holesaws**  
**Impact Sockets**  
**Knives and Blades**  
**Reciprocating Saw Blades**  
**Tape Measures**  
**Taps & Dies**  
**Collated Nails**  
**Chemz Aerosols**  
**Adhesives & Sealants**

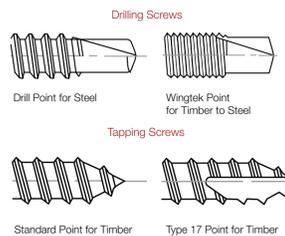
### Common Head Types



### Common Drive Types



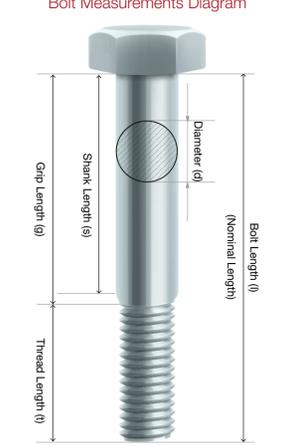
### Common Screw Points



### Hex Bolt & Nut Marking Identification



### Bolt Measurements Diagram



### Metric Hex Head Bolts AS/NZS1110/1111 Standard Measures

Metric Diameter, mm	M4	M5	M6	M8	M10	M12	M14	M16	M20	M22	M24	M27	M30	M33	M36
Hex Head Size Across Flat, mm	7	8	10	13	16	18	22	24	30	34	36	41	46	49	54
Pitch (Coarse), mm	0.7	0.8	1.0	1.24	1.5	1.75	2.0	2.5	2.5	3.0	3.0	3.5	3.5	4.0	4.0
Hex Head Height, mm	2.8	3.5	4.0	5.3	6.4	7.5	8.8	10.0	12.5	14.0	15.0	18.0	18.7	21	23
Thread Length ≥ 125, mm	Full	Full	16	18	22	26	30	34	38	46	50	60	66	72	78
Thread Length ≥ 125, mm	Full	Full	24	28	32	36	40	44	52	56	66	66	72	78	84

### Metric Bolt Thread Length

Bolt Length, mm	Thread Length Calculation
0 to 125mm	2 x Diameter + 6mm
125 to 200mm	2 x Diameter + 12mm
200+mm	2 x Diameter + 25mm

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Call us on 07 282 0490

**Wellington**  
126 Nelson St., Petone,  
Lower Hutt, 5012  
Call us on 04 282 1298

### Approximate Guide to Imperial and Metric Conversion

Inch	3/16	1/4	5/16	3/8	1/2	9/16	5/8	3/4	7/8	1	1 1/8	1 1/4	1 3/8	1 1/2	1 3/4	2
Metric	M5	M6	M8	M10	M12	M14	M16	M20	M22	M24	M27	M30	M33	M36	M42	M48

The data provided in this document is for general guidance only and should not be solely relied upon when working to stringent specifications. We recommend consulting with qualified experts regarding any technical queries. This information may change without written notification.  
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