Types of screws and their applications

Screws come in a variety of different designs, which are tailored to specific applications. The designs vary depending on the type of material it will engage with, or if it requires specific tools to be used. Here are a list of different types of screws, and their applications:

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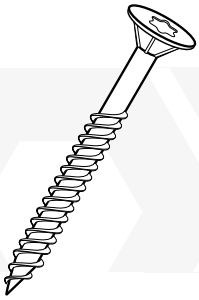

Blue Purlin Screws

Milsons Blue Purlin Screws are specialised fasteners designed for securing purlins and battens in compliance with NZS3604:2011. These 10G x 80mm coarse-threaded particle board screws feature a sharp point to initiate drilling without the need for a pilot hole. Coated in blue for quick and easy identification, each pack also includes a free driver bit. These screws are available with countersunk heads and offer a choice of square or Torx drive options.

Applications: They are ideal for use in roofing and general construction applications.

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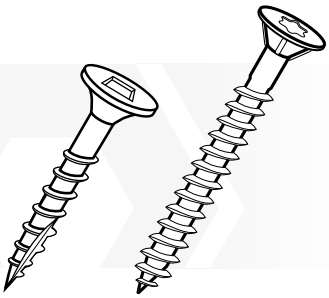

Surefast (Particle Board) Screws

These screws were originally designed to be screwed into particle board/MDF however, they are often used into any type of wood these days. They are self-tapping screws with coarse, widely spaced, sharp helical threads that can cut threads into the base material. They also often feature sharp ends and have Bugle or Countersunk heads with ribs to help the head rest flush with the board once it is fully screwed in.

Applications: Used in joinery, furniture construction, and fixing anything to timber.

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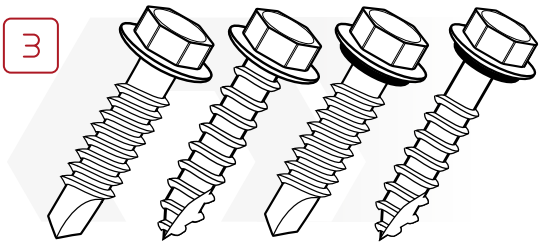

Hex Washer Face Screws (HWF)

Hex Flanged Head Screws or “Roofing screws” come under both the Self-tapping and Self-drilling style of screw. They can also be referred to as Timber Tek or Metal/steel Tek. The external hex head provides a positive connection with the driver bit and helps the screws stick to the driver bits. The Type 17 timber versions will penetrate light gauge steel and drill into most timbers. The self-drilling type will drill in steel 3-5 mm thick. The Deep drilling version has a much longer drill point and can penetrate steel up to 12 mm thick. Screws can come with or without a neoprene washer (seal), these provide weather tightness to prevent water seeping down the screw (i.e. your roof).

Applications: Fixing roofing iron to timer/steel purlins. Used in timber boxing frames, used to fix brackets, and just about anything else.

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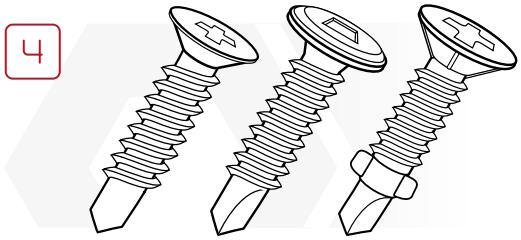

Self-Drilling Screws

These screws are very similar to the self-tapping screws, except they have an end that resembles a drill bit. They also have sharp, helical threads that can cut a thread into various thickness of steel depending on the length of the end. This means they can create their own hole, as well as their own thread. They are commonly also known as ‘Tek’ screws. Available in Countersunk, Pan, Wafer, and Button head styles and various drive types like Square, Pozi and Phillips. The Wingtek version, as the name suggests, has small wings that help the screw clear a hole through the timber before these snap off once the steel is penetrated. Most self-drilling screws are suitable for material up to 3-5 mm thick depending on the quality and grade of material.

Applications: Primarily used to fasten into steel through a range of materials. They are used in many applications where the speed of fixing is important and when you only have access to one side.

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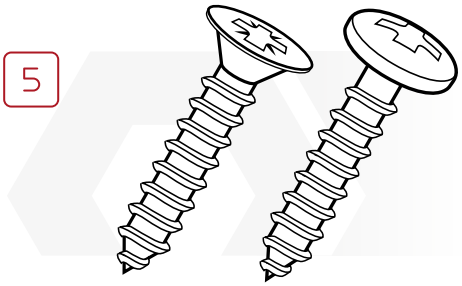

Self-Tapping Screws

Self-tapping screws are characterised by sharp, helical fine threads (thread type AB). Their heads shapes are commonly specified as Countersunk or Pan, and most common drives are Square, Pozi or Phillips. Generally, a wider range of diameters are available with self-tapping screws over wood screws (4g, 6g, 8g, 10g, 12g, 14g).

Applications: Can be used into sheet metal or wood, like most other screws a pilot hole is recommended for most applications. Some example applications include fixing metal brackets into wood/steel, screwing into plastic components, etc.

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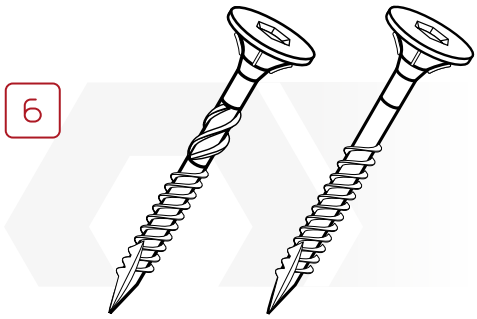

Bugle Batten Screws

Bugle batten screws feature a shank that is partially threaded with a sharp, coarse thread, and a type 17 point to help the screw start in timber. These have a Bugle head that would be flush with the surface it is screwed into. Most common diameter is a 14G (6.3 mm) which has a 5 mm hex recess.

Applications: Used in applications to connect two timber parts together or screw metal fixtures onto timber parts. Common in Post and Rail type fencing, wood construction, and can be used in roof purlin construction.

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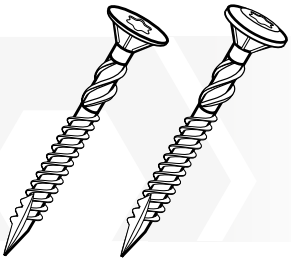

Decking Screws

Milsons decking screws are designed for exterior decking into a wide variety of timbers. Featuring a Torx drive head, decking screws provide a robust grip, allowing for the screws to be tightened more securely. The type 17 tip facilitates self-drilling into softwood, while the countersunk head makes for a flush finish. Moreover, the knurled shank efficiently clears drilled holes of debris and supporting the decking material.

Applications: Exterior timber decking, cladding installation, balustrade construction.

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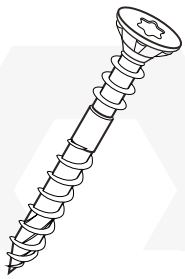

Levelling Timber Screws

The Milsons Levelling Timber Screw is a specialist fastener designed for accurate spacing and alignment of timber structures. These screws feature a dual-thread shaft and under-head spacing thread that locks firmly into the back timber while allowing precise adjustment of the front member. This enables fast, on-site levelling of battens, joists, cladding systems, and other timber components - ideal for applications requiring exact vertical or horizontal alignment. The self-drilling tip eliminates the need for pre-drilling, speeding up installation and reducing tool changes. Once installed, adjustments can be made to the front timber layer by rotating the screw, enabling millimetre-accurate fine tuning.

Applications: Cladding systems (vertical and horizontal), suspended ceiling grids and battens, internal or external timber wall levelling, floor build-ups and under-structure adjustments, façade and rain screen timber battens

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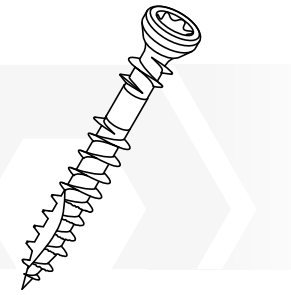

Jolt Screws

Jolt Screws are 8G screws with a compact jolt-style head designed for a neat, low-profile finish. Often used for fixing weatherboards, fascia, window and door frames, they are ideal where a discreet head is preferred for a tidy fill-sand-paint result. They feature a T15 Torx drive and do not require pre-drilling or punching like nails, offering faster installation and the ability to remove if needed. Available in 316 Stainless Steel or RXB Galvanised coatings, they are suitable for exterior timber fixing in exposed environments.

Applications: Weatherboards, decorative cladding, window and door jambs, and exterior trims.

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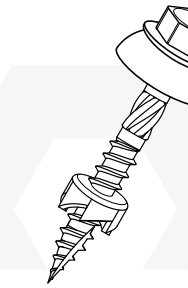

Polycarb Roofing Screws

Polycarb Roofing Screws are self-drilling screws specifically designed for fixing polycarbonate roofing sheets to timber or steel purlins. They feature a large domed sealing washer to support the sheet and prevent water ingress, along with an expansion hole cutter that creates a thermal expansion hole during installation. This design accommodates the natural movement of polycarbonate due to temperature changes, preventing stress cracking and ensuring a secure, weather-resistant seal..

Applications: Fixing polycarbonate roofing to timber or steel, pergolas, greenhouses, sheds, and crest fixing applications.

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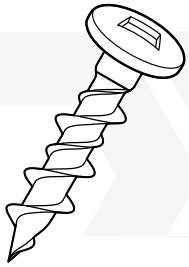

Multi Screws

Multi Screws are universal fasteners designed to install directly into a wide range of base materials without requiring a plug. Featuring a pan head with a Square drive and specialised thread geometry, they offer fast installation, strong hold, and reduced risk of spinning or stripping during fastening. They are ideal for lightweight fixings where speed, simplicity, and reliability are key. Best installed with a non-impact driver. Pre-drilling may be required in harder base materials.

Applications: Electrical conduit saddles, pipe saddles, lighting fixtures, signage, downpipes, guttering, and light brackets.

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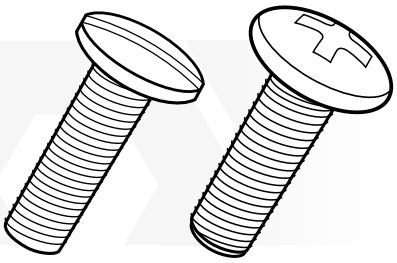

Machine Screws

Machine screws are some of the most widely used of all the screw types. They have several characteristic features:

- Blunt or flat ends.
- Heads can feature different head shapes and drives e.g. Countersunk, Pan, Cheese and Mushroom Head, Pozi, Phillips, and Slot drive.
- Are fully threaded (generally used with a hex nut/ nyloc nut).
- Most commonly stocked in Zinc plated steel or Stainless-steel grade T304.

Applications: Construction and other areas which experience heavy cyclical vibrations.

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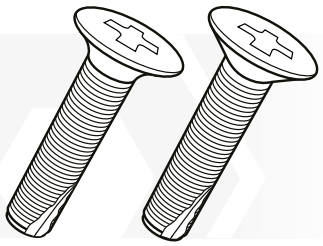

Truck Deck Screws

These are M6 threaded screws with Countersunk heads, designed to connect wood to a steel frame with the aid of a pilot hole. The type 23 point on the screws helps tap the thread of the screw into the steel. Getting the correct size pilot hole is important. Mainly found in Phillips drive #3 and in Zinc plated steel.

Applications: Used to connect wood to steel as in truck decks or trailers.