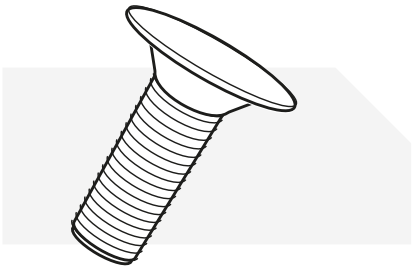
Types of screws and their applications

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:

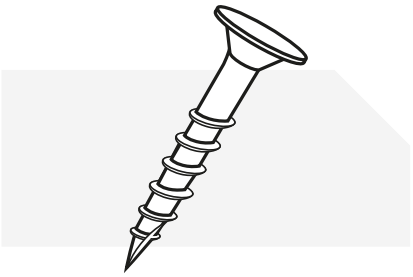


1. Machine Screw

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

- Blunt or flat ends
- Small heads (often smaller than 0.75 inches)
- Heads can feature different head shapes, drives and slots, depending on which screw driving tool is used with them.
- Long, uniform and fine threads (needed for more precise applications in smaller parts)
- Made from corrosion resistant material with high strength and durability (Milsons only stock in 304 grade)

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

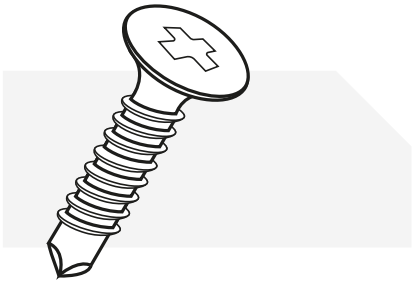


2. Self-Tapping Screw

Self-tapping screws are characterised by sharp, helical threads and often a pointy end. Their heads can feature various designs, ranging from mushroom head that stand out from the surface, or countersunk heads that rest flush with the surface it is being screwed into.

The sharpness of the threads and pointiness is designed to help the screw cut a thread as it is driven into a hole in softer materials. Unlike other screws, self-tapping screws do not need a pre-tapped hole.

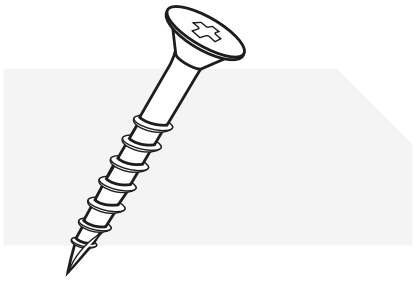
Applications: Often used with softer materials such as wood or plastics, where the external threads on the screw can easily cut a threaded hole on its own. Some example applications include fixing metal brackets into wood or timber, screwing into plastic components, etc.



3. Self-Drilling Screw

These screws are very similar to the self-tapping screws, except they have an end that resembles a drill bit (also known as a 'flute'). They also have sharp, helical threads that can cut a thread into softer materials. This means they can create their own hole, as well as their own thread. This is slightly different to a self-tapping screw, which can only create its own thread but can not drill its own hole. They are sometimes also known by their brand name, as 'Tek' screws.

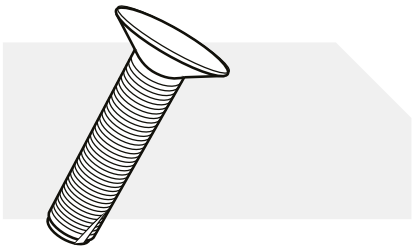
Applications: Can be used to fasten metal to metal or metal to wood and other materials. They are used in applications where it is difficult or tedious to drill and tap a hole separately. This makes them useful in niche applications such as orthopaedic surgery, assembly finish lines or construction uses such as roofing and sheet metal.



4. Particle Board Screws

These screws are specifically designed to be screwed into particle boards, and used where regular wood screws cannot be used. They are self-tapping screws with coarse, widely spaced, sharp helical threads that can cut threads into a drilled hole. They also often feature pointy ends and have bugle or countersunk heads that rest flush with the board once it is fully screwed in.

Applications: Used in particle boards where regular wood screws will damage the material.

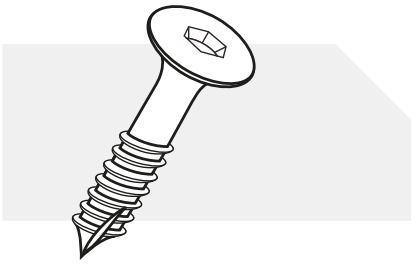


5. Truck Deck Screws

These are screws with countersunk heads, and smaller, finer threads. They are designed to connect decking boards to the joists, so they should be able to cut into the wood material. Deck screws feature a fully-threaded shank, i.e. the thread runs all the way from the head to the tip.

As decks would sometimes be exposed to various harsh weather elements (rain, wind, etc), the fasteners used would also have to withstand those elements. Hence, they are often made from strong, durable, and corrosion resistant materials like carbon steel or stainless steel.

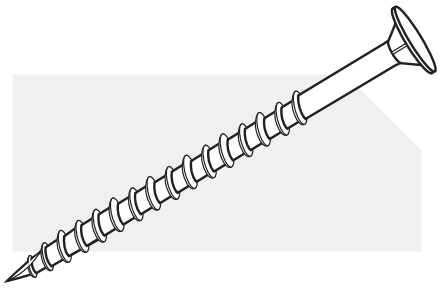
Applications: Used to connect decking boards to joists.



6. Bugle Batten Screws

Bugle batten screws feature a shank that is partially threaded with a sharp, coarse thread, a pointy end, and a bugle head that would be flush with the surface it is screwed into. The bugle head is flat at the top, but has small metal ribs on the sides, which helps to carve into woods like timber.

Applications: Heavy duty, self-tapping screws that are used in applications to connect two timber parts together or screw metal fixtures onto timber parts. Mainly used in decking or outdoor woodworking applications.

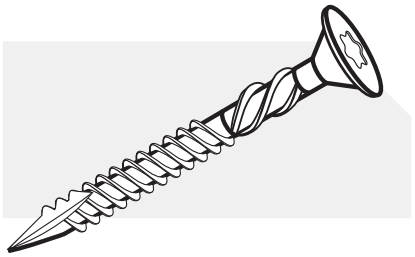


7. Timber Framing Screw

Timber framing screws are very long screws with a countersunk head (conical head with flat top that is meant to sink in, so that it becomes flush with the surface).

It also has a very long thread, which is designed to be installed into thick timber frames. The screws are coated with Blue Ruspert for durability.

Applications: Designed to be used in timber frames for construction purposes.



8. Decking Screws

Milsons decking screws are designed to offer unparalleled connection strength and stability, minimising movement while accommodating the expansion and contraction of decking boards.

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 guarantees a flush finish. Moreover, the knurled shank efficiently clears drilled holes of debris, reducing the torque required for installation.

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