

# Types of Stainless Steel



**Stainless Steel differs from Carbon Steel as it has the addition of Chromium, and must be at least 11% Chromium to be classified as Stainless Steel. This level of Chromium is the minimum amount required to form a passive film of chromium oxide, which in turn prevents the formation and spread of iron oxide (rust). However, Stainless Steel is not completely impervious to corrosion. It can oxidise and tarnish, but is highly corrosion resistant in comparison to Carbon Steel.**

Milsons stock general fasteners in two main grades of Stainless Steel, 304 and 316. Both of these grades belong to the 300 series Austenitic family of stainless steel.

The exception to this is our Self Drilling Screws in Stainless Steel. We stock the 410 grade which is part of the Martensitic family of Stainless Steel. This is because, unlike 300 series, the 410 grade can be hardened, which is required for a stainless self drilling screw.

## 304

### Description

304 Stainless Steel, also referred to as A2 Stainless Steel, is a general purpose grade that is selected for applications that require greater corrosion resistance than provided by Carbon Steel, or Carbon Steel with Zinc or Galv plating. 304 is also safe for use in application that directly contact foodstuffs or produce. Therefore, it is commonly used for sinks, tabletops, stoves, refrigerators, pots, pans dairy equipment, brewing industry equipment, fruit industry, food processing plants, pipelines, and many more applications.

## 316

316 Stainless Steel, also referred to as A4 Stainless Steel, is similar to 304, but offers greater corrosion resistance. 316 achieves a higher level of corrosion resistance than 304 as it has the addition of Molybdenum as well as higher levels of Nickel. Because of its increased corrosion resistance, 316 covers most applications of 304 but is also suitable for use in marine and coastal environments.

### Chemical Composition

18% chromium  
8% nickel

16% chromium  
10% nickel  
2% molybdenum

### Range of Items Milsons Stock in Stainless Steel

- Bolts
- Nuts
- Washers
- Threaded Rod
- Screws
- Marine Hardware
- Cotter Pins
- Key Steel
- Shaft Collars
- B8M Stud Bar

ⓘ 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 notice.