

The different alloying elements in stainless steel can be combined in different proportions to create a range of grades that are suitable for almost any application.

26
Fe
Iron

Iron is the most abundant element on Earth and has been utilised by mankind for many thousands of years. When alloyed with carbon, iron forms steel. Adding chromium and other alloying elements creates a range of stainless steel grades with very different properties.

24
Cr
Chromium

Chromium is the alloying element that makes steel stainless. All stainless steels include at least 10.5% chromium. Many grades contain even more chromium to improve their resistance to corrosion and oxidation at high temperatures.

28
Ni
Nickel

Nickel is added to stainless steel to improve toughness and ductility. The presence of nickel enables stainless steel to be fabricated easily, and used at both extremely high and low temperatures. It also enhances corrosion resistance.

42
Mo
Molybdenum

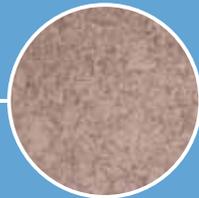
Molybdenum is added to many stainless steels to improve their corrosion resistance in harsh conditions, particularly in salt and acid-rich environments. It also increases the strength of stainless at high temperatures.



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