**6 Tips For Preventing Rust**

Rust is the orange-brown flakes of iron oxide that form on the surface of any metal containing iron that is exposed to air and water.

The rusting process begins when iron reacts with oxygen in the presence of water, salt water, acids, or other harsh chemicals.

When iron oxide peels off the metal surface, it exposes fresh iron molecules, which continue the reaction. Eventually, large areas of rust are formed, which can lead to destruction of the entire metal structure.

Ferrous metal is a metal containing iron, and only iron can rust. Common ferrous metals include carbon steel (1018, 12L14), alloy steel (4130), and stainless steel (304, 316). Non-ferrous metals such as aluminum and copper are practically free of iron and therefore cannot rust, although they can corrode.

Water is enemy number one because it is oxygen in water molecules that combines with iron to form iron oxide.

**Apply a protective coating**

Immersion of metal objects such as watches in a solution of water, sodium hydroxide and potassium nitrate, which provides high corrosion resistance.

**Use galvanized metal**

Electroplating is a process that has been used to protect steel from rust for many years. In the galvanizing process, a piece of steel is coated with liquid zinc. Zinc protects steel in three different ways. First, the zinc coating acts as a barrier. Secondly, even if the coating is scratched, zinc continues to protect the surrounding metal through cathodic protection. Thirdly, zinc is very reactive with oxygen and quickly forms a protective zinc oxide coating.

**Regular maintenance**

Since rust spreads quickly, it is important to scrape it off as soon as it appears. Then rub with warm soapy water and apply a metal conditioner or other protective coating to prevent further oxidation. Apply a new coat of paint to the area if necessary.