

# Stainless Steel - **What are the benefits of using 316 Stainless Steel ?**

## **What differentiates 316 Stainless Steel from 304 Stainless Steel?**

The composition of Type 316 Stainless Steel includes slightly increased nickel content and the presence of 2%-3% of molybdenum, which significantly increases the metal's corrosion resistance.

## **Where would I use 316 Stainless Steel?**

The use of 316 Stainless Steel is ideal in coastal areas, marine applications subject to sea sprays, industrial equipment exposed to corrosive process chemicals, and any area subject to high exposures of chloride (including de-icing salts).

## **What are some of the benefits of 316 Stainless Steel?**

The unique composition of 316 Stainless Steel provides improved performance in many areas, including:

- **Superior Resistance to Chloride**  
Corrosive salts can be present in many areas of the country. In addition to coastal areas, sea sprays, and salt in rain water, heavy exposure to chloride can also be present in many parts of the country that use de-icing salts on roadways. Salt-laden roads in colder climates can sometimes create even heavier salt deposits than coastal areas. The de-icing salts become airborne via dust and road mist that allows them to travel significant distances from busy roads and deposit on surrounding structures including buildings, exterior furniture, lamp posts, etc....
- **Resistance to Corrosive Chemicals**  
The addition of molybdenum increases the metal's resistance to acetic, sulfuric, and sulfurous acids as well as many industrial chemicals and solvents. These types of corrosive process chemicals are used to make a wide variety of products including inks, textiles, photographic chemicals, paper, textiles, rubber, and bleaches.
- **Better Resistance to Cracking & Pitting**  
316 Stainless Steel offers a reduced risk to stress corrosion cracking, improved creep resistance, and better protection against pitting and crevice corrosion.

## **What are some common applications for Type 316 Stainless Steel?**

- Marine environment applications – (\*with the exception of fasteners that require better strength & wear resistance versus corrosion resistance).
- Coastal area structures and exterior products.
- Architectural structures and exterior products found in colder climates where significant amounts of de-icing road salts are used.
- Industrial equipment that handle corrosive process chemicals used to make such products as inks, textiles, bleaches, photographic chemicals, and rubber.