

About Stainless Steel – did you know?

- Stainless Steel is *corrosion resistant* – not corrosion proof.
- There are many grades of stainless steel, with different chemical compositions, some more corrosion resistant than others (see FFI’s “Stainless Steel Types” data sheet).
- Some grades of stainless steel are moderately magnetic – using a magnet as a test of whether an item is stainless steel is *not* a valid test, contrary to popular belief!
- Stainless steel may develop minor surface rust over time, especially in coastal applications.
- Grades of stainless steel with higher chromium content are less likely to rust, but it still can occur.
- Stainless steel forms a passive film to protect itself from corrosive rust.
- Salt water, acidic water, and other strong chemicals such as chlorine attack the passive film and promote corrosion.
- *Stainless steel should not be stored or installed where it will touch steel, aluminum, iron, or other dissimilar metals.* Contact between these metals ruins the passive film and *encourages* corrosion (see FFI’s “About Dissimilar Metals” data sheet). If a dissimilar metal is used with the stainless steel component, galvanic corrosion will occur.
- Therefore always use brass or stainless steel screws and bolts with stainless steel handles or tracks (never use steel or aluminum screws or bolts).
- Stainless steel corrosion is also more likely to occur in oxygen restrictive surface areas, such as under a bolt head.
- Mild surface rust on stainless steel can be unsightly, but will not cause product failure, and for most products does not merit a warranty claim.

Stainless Steel Maintenance

- Clean stainless steel products monthly for best results, or semi-annually at a minimum.
- Clean surface debris and residue from stainless steel with a soft cloth, water and mild soap.
- Clean surface discoloration with a mildly abrasive, *non-metallic* pad such as Scotch-Brite.
- Never use bleach, chloride detergents, or other strong cleaners on stainless steel.
- Never clean or polish stainless steel with steel brushes or steel wool; steel and stainless steel are dissimilar metals; contact between these metals *encourages* corrosion (see FFI’s “About Dissimilar Metals” data sheet).
- Never use abrasive materials which will roughen the surface, destroy the passive protective film, and cause corrosion.
- Annual corrosion-preventive maintenance for stainless steel should include rubbing with a coating of Boeshield T-9 or lemon oil.

FFI has products in many grades of stainless steel, including 430, 304, and 316-L Marine Grade. Contact FFI for more information about our stainless steel products.