

## WELDED STAINLESS STEEL & INTERNA-RAIL MAINTENANCE MANUAL

### Overview

Both 304 and 316 stainless steel are extremely durable with anti-corrosion properties. Proper care and maintenance will ensure optimal performance over a long-service life. Exposure to saline, chlorides, abrasive chemicals, or carbon steel will diminish stainless steel anti-corrosion properties and increase the risk of damage. Exercise caution when handling stainless steel products. Trial and error testing, beginning with the simplest procedure, will determine which will be the most effective.

### Fastening Procedures

All fasteners used in the Interna-Rail® handrail system are 304 stainless steel alloy, and are designed to be permanently locked. They should not require maintenance under normal conditions. However, there may be exceptions under conditions of excessive vibration, or where an impact load has occurred that may require a retightening of set screws or anchor bolts. A periodic inspection of the handrail system by physically moving the top rail back and forth will reveal any need to tighten the fasteners. If any looseness to the system has occurred the following torque settings are recommended:

- 3/8" dia. Set screw at Interna-Rail components: 26 ft./lbs.
- 3/8" dia. Set screws at post to mounting flange: 17 ft./lbs.
- Anchor bolts: See manufacturer's recommendation.
- For any chronically loose or out of code structural concerns consult a professional service provider immediately.

### Cleaning Procedures

**Routine Care:** Use a soft nylon brush to remove any accumulated dirt and wash with mild soap or detergent. Rinse thoroughly with clean water and wipe dry with a soft cloth. Perform routine inspection and cleaning every 6 months. Stainless steel should not corrode with proper care. If signs of corrosion appear, clean immediately.

#### **Contaminated or Passivated Steel:**

Minor: Use a soft cloth to apply a solution of oxalic acid to the surface and leave on for a few minutes. Rinse thoroughly with clean water.

Moderate or Severe: Consult a professional service provider.

#### **Corrosion:**

Minor: Use an all-purpose lubricant (i.e. WD-40) or domestic stainless steel cleaner containing calcium carbonate or citric acid (i.e. Citisurf 77 Plus). Rinse thoroughly with clean water.

Moderate or Severe: Consult a professional service provider.

### Cleaning Precautions

- Do not use carbon steel or galvanized fasteners to install stainless steel products. Use only stainless steel components and tools to prevent contamination.
- Do not weld, cut, drill, or grind carbon steel near stainless steel. Resulting particles will contaminate stainless steel and lead to rust.
- Do not use cleaning products containing chlorides or other abrasive chemicals.
- Do not allow chloride solutions or concrete detergents to contact stainless steel. If contact occurs, immediately rinse away with water. Wrap stainless steel when power washing nearby surfaces to prevent contact of concrete detergents.
- Do not use abrasive brushes or scouring pads to wipe stainless steel. Use a soft, lint-free cloth or soft nylon brush unless specified otherwise. For heavier rust deposits, a nylon scouring pad may be required. To minimize alteration of stainless steel finishes, use only ultra-fine nylon pads and rub with the grain.
- Do not clean stainless steel in direct sunlight or excessive temperatures.
- Use clean gloves when handling stainless steel products.
- Follow the safety instructions provided with cleaning or polishing agents.
- Use personal protective equipment in accordance with occupational health and safety guidelines stipulated by your local governing authority.

### References

National Association of Architectural Metal  
[www.naamm.org/](http://www.naamm.org/)

National Ornamental & Miscellaneous Metals Association [www.nomma.org](http://www.nomma.org)