

## SPEED-RAIL® MAINTENANCE MANUAL

Speed-Rail® castings are manufactured from aluminum alloy 535 and supplied in standard mill finish. Optional clear anodized finish is exceptionally resistant to corrosion, discoloration, and wear. Periodic maintenance is necessary only to prevent the long-term accumulation of soil, which, under certain conditions, can accelerate the weathering of the finish. The geographic area and environmental conditions will determine the frequency and method of cleaning. Several progressively stronger cleaning procedures may be used depending on the severity and tenacity of the soil. Trial and error testing, beginning with the simplest procedure, will determine which will be the most effective.

Set screws used in Speed-Rail® components are plated per ASTM B633 followed by trivalent conversion and JS600 top coat, optional stainless steel 302 alloy set screws are designed to be permanently locked. They should not require periodic 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 retighten the fasteners. If any looseness to the system has occurred the following torque settings are recommended:

- 3/8" dia. set screws 17 ft-lbs
- 5/16" dia. set screws at post to base flange: 14 ft-lbs
- Anchor bolts – See manufacturers recommendation

### Cleaning Procedures

1. For light or loose soil, flush surface with water using moderate pressure.
2. For moderate soil, wash with a mild soap or detergent, that can be applied with bare hands, on a soft cloth or sponge then rinse with clean water.
3. To remove oil, grease, wax, or polishes, use a solvent such as lacquer thinner applied with a soft cloth. Surface can then air dry.
4. Heavy soil can be removed with an abrasive cleaning pad soaked with clean water or detergent. Scrub in the direction of the metal grain (along the length of pipe). Rinse thoroughly with clean water to remove residue from pad or cleaner. Care must be taken to ensure that metal seams and crevices that may trap dirt, cleaner, or other material are rinsed thoroughly.

### Cleaning Precautions

1. Never use chlorine bleach, trisodium phosphate, highly alkaline, or highly acidic cleaners.
2. Etching cleaners should never be used on aluminum.
3. Avoid excessive rubbing with abrasive cleaners, scouring pads, brushes, or steel wool. Also, steel wool must be thoroughly rinsed off surface to remove steel particles that may rust.
4. Do not use power tools with wire brushes, abrasive pads, or polishes that may scratch or abrade the anodized surface.
5. Avoid cleaning during extremely high or low temperatures for optimum results, and to prevent streaking or staining.
6. Steam cleaning may blush or craze the anodized finish if held too close or too long in one spot.
7. Anodized aluminum may develop white blemishes if chemical cleaners remain in place too long.
8. When in doubt about a particular cleaner spot test first in an obscure location.

### References

CARE OF ALUMINUM  
The Aluminum Association Inc.  
<https://www.aluminum.org/>

METAL FINISHES MANUAL FOR ARCHITECTURAL AND METAL PRODUCTS, FINISHES FOR ALUMINUM,  
AMP 501-88  
National Association of Architectural Metal  
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VOLUNTARY GUIDE SPECIFICATION FOR CLEANING AND MAINTENANCE OF ARCHITECTURAL ANODIZED  
ALUMINUM, AAMA 609.1  
American Architectural Manufacturers Association  
<https://aamanet.org/>