

**Division \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Specification Section # \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Floor Mounted 2.0” O.D. Stainless Steel Sani-Tube™ Tube Rail System**

**Part 1 General**

Furnish 2” O.D. Floor Mounted Stainless Steel Sani-Lever™ Rail System for wall protection as described in this Specification.

* 1. **Quality Assurance**

**1.1.1** Manufacturer’s Qualifications: Obtain all materials from a single source manufacturer with at least five years’ experience in the fabrication of stainless steel wall protection products.

**1.1.2** Contractor’s Qualifications: Installation shall be performed by an approved contractor with not less than five years’ experience un wall protection systems. Installer shall have worked on projects of similar size and complexity and in facilities similar to this project.

**1.1.3** Material Verification: Furnish the contractor with material test data to verify the allo composition of the rail and components to be utilized in this project.

**1.2 Warranty**

Manufacturer should offer a limited lifetime warranty against material and manufacturing defects. Contractor should offer a one year installation warranty.

**1.3 Submittal**

**1.3.1** Submit at least one sample of railing, and one vertical support. Sample should be of sufficient size to demonstrate the salient features of the specification.

**1.3.2** Samples submitted for consideration as product equals, should be submitted at least 10 days prior to bid date.

**1.3.3** Submit Manufacturer’s printed Product Data Sheet for each product in this specification.

**1.3.4** Submit Detail Drawings to include mounting and fastener options.

**1.4 Field Conditions, Handling and Storage**

**1.4.1** A representative of the manufacturer shall visit the job site prior to obtaining field dimensions and/or installation, to evaluate the site conditions and report to the site supervisor and conditions that prohibit the initiation of the measurements and/or installation of the Sani-Tube™ rail system.

**1.4.2** Material delivered to the job site should be in unopened factory packaging.

**1.4.3** Store materials in a climate-controlled environment.

**1.4.4** Ensure all products delivered are the products listed in this specification.

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**Part 2 Products**

**2.1 Manufacturers**

 **2.1.1** Acceptable Manufacturer:

 Life Science Products, Inc.

 124 Speer Road

 Chestertown, MD 21620

 Telephone: 800-638-9874 email: info@lspinc.com

 **2.1.2** Substitutions: Not Permitted.

 **2.1.3** Provide all floor mounted rail from a single manufacturer.

**2.2 Rail**

**2.2.1** Material shall be 2” O.D.(50.8.mm) 304 or 316L Alloy Stainless Steel Tube with a #4 Polish and an 11 GA (.105”) wall, supplied in maximum lengths of 12’ (3,657.6mm). Material specifications shall conform to ASTM A-276. The brackets used for mounting the rail be 304 or 316L Stainless Steel with a #4 Polish. Rail will not have continuous inside and outside corners.

**2.2.2** Each rail section shall be marked with its own unique identification number on the inside of the bracket, which will match the numbered section on the installation drawings. Plans must be maintained on file with the manufacturer for future reference.

**2.2.3** Returns, Inside Corners and Outside Corners shall be a stainless steel and finish to match the tube rail.

**2.2.4** Railing to be safety packaged to minimize scratches and packed in plywood crates for shipping to the site.

**2.3 Vertical Supports**

**2.3.1** Vertical supports shall be 2” O.D – 304 or 316L Alloy with a #4 Polish stainless steel tube with an 11 Gauge (.105”) wall.

**2.3.2** Vertical supports will include a Solid Aluminum Mounting Spigot of 6061 Alloy, 1-15/16” diameter by 2-1/2” tall, drilled and tapped for a ½-13 anchor bolt.

**2.3.3** A Friction fit end cap shall be made of 304 alloy stainless steel with a #4 Polish finish, set with epoxy at the factory.

**2.3.4** An inner aluminum splice sleeve to connect the two pieces shall be 6061 alloy, 1-15/16” diameter set with epoxy in the field.

**2.3.5** A ½-13 anchor bolt shall be inserted into the floor to match the locations of the Vertical Supports. The mounting spigots are applied to the anchor bolt.

**2.3.6** Vertical Support dimensions unless otherwise specified, shall have the top of the rail tube set to 11” (279.4mm) AFF (10” CL).

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**Part 3 Execution**

**3.1 Field Measurements**

**3.1.1** Prior to taking field measurements, all permanent walls and door bucks must be in place. All wall cutouts such as electrical panels, fire extinguishers, et. Must be completed. Locations of cover plates should be installed to avoid being covered and/or obstructed by Sani-Lever™ railings.

**3.1.2** Field measurements must be taken within an 1/8” tolerance.

**3.2 Site Exam**

 **3.2.1** Ensure all site finishing steps are complete. Including painting and coatings.

 **3.2.2** Floor and/or Wall shall be clean and free from dirt, grease, debris or moisture.

**3.3 Fabrication**

 **3.3.1** Fabrication tolerance shall be to the nearest 1/8”

**3.3.2** Vertical Supports shall be placed no greater than 48” (1,219mm) apart. Exact Vertical Support placement is to be determined by the manufacturer at the time of fabrication. Unless otherwise specified prior to bid date, Vertical Support placement is the sole discretion of the manufacturer, as long as the 4-foot maximum spacing is not violated.

 **3.3.3** All terminations are to be straight end with end caps. Not continuous to the floor.

 **3.3.4** Due to required welding, tube sections may have a slight bow and/or deformationing.

**3.3.5** #4 Finish is to be blended at any welds, cut edges, etc. The finish may vary slightly in hue from weld to weld.

**3.3.6** The shortest wall section to be protected with a rail section having one Vertical Support is 6” (152.4mm).

**3.3.7** The shortest wall section to be protected with a rail section having two Vertical Supports is 10” (254mm).



 **Parts List**

(2) SS Tube 2”OD. (11GA Wall) 304 Alloy w/#4 Polish

ended(3) Vertical Support 2”OD Tube (11GA Wall) 304 Alloy w/#4 Polish

(4) Friction Fit SS End Cap 304 Alloy w/#4 Polish (set at factory w/epoxy)

(5) “Inner” Aluminum Splice Sleeve, 1-15/16” DIA.(set in field w/epoxy)

(6) ½”-13 SS Serrated Flange Lock Nut w/washer (provided by factory)

(7) Aluminum Floor Mounting “Spigot”, 1-15/16” DIA.Tapped & Threaded

(8) ½-13 x 7 304 SS Wedge Bolt (provided by factory)

(9) Construction Grade Adhesive - Loctite PL-3X Premium Fast Grab

 Polyurethane recommended or per architectural spec.

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