

## **Part 1 - General**

### *1.1 Sections Includes*

- A. Component type, seamless weld stainless steel handrails, guardrails, and railing systems, including connectors, fasteners, and system required accessories.

### *1.2 Submittals*

- A. Product Data: Submit P&P ARTEC’s specifications for all components of each product type specified.
- B. Shop Drawings: Show complete layout including plan views, elevations, sections and details.
- C. Engineering Test Reports. Stamped drawings and test reports available.

### *1.3 Performance Requirements*

- A. Structural Performance: Please use structural code requirements, after confirming with P & P Artec. Rail Tested per ASTM E 894-88 Standard Test Method for Anchorage of Permanent Metal Railing Systems and Rails for Buildings.

E 935-93 Standard Test Methods for Performance of Permanent Metal Railing Systems and Rails for Buildings.

E 985-93 Standard Specification for Permanent Metal Railing Systems and Rails for Buildings.

- C. Thermal Action and Corrosion Control:
  - 1. Allow for thermal action resulting from the maximum range change in ambient temperature in the design, fabrication and installation of rail systems, to prevent opening of joints, buckling, and other detrimental effects, including over-stressing of connections and components.
  - 2. Prevent galvanic action, and other forms of corrosion by isolating dissimilar metals to prevent them from being in direct contact with each other.

### *1.4 Quality Assurance*

- A. Manufacturer Qualifications: Provide handrails, guardrails, and railing systems from P&P ARTEC only. Provide quality in appearance and physical properties, without delaying the work. All connection fittings must be bolted, clamped or screwed. The finish of handrail welds must be completely seamless and invisible.

### *1.5 Delivery, Storage and Handling*

- A. Deliver handrails, guardrails, and railing systems and related components in protective packaging and store components to avoid damage from moisture, abrasion and other construction activities. All materials must be delivered, stored and handled by P&P ARTEC technicians only.

### *1.6 Alternatives*

- A. No alternatives.

## Part 2 - Products

### 2.1 Manufacturer

- A. "P&P ARTEC" stainless steel component part railing systems must be manufactured by P&P ARTEC, 700 Creel Drive, Wood Dale, IL 60191, TEL. (630) 860-2990. [Info@artec-rail.com](mailto:Info@artec-rail.com).

### 2.2 Materials

- A. Material quality: Provide materials free from surface blemishes where exposed to view in the finished installation.
- B. Guardrails and Handrails: 304 or 316 stainless steel pipe – 1.9" O.D. (Guardrail) or 1.5" O.D. tube (1 1/2" diameter) with a 360- 400 grit finish. Seamless welded joints at directional changes. Glass Guardrail option available with lower Handrail.
- C. Balusters: 5/8" X 2 1/2" Stainless Steel Tube with #4 finish.
- D. Connection fittings: 304 stainless steel with the following finishes (please specify) #7 polished, #4 Brushed, Or Satin (Sandblasted – Interior Only).
- F. In-fill Panel (Glass or custom):
  - ☞ Glass lites, 1/2" clear tempered + laminated where required by code, all four sides polished, bumped corner, holes for attachment to glass clips. Custom infill panel available upon request.
- G. Bolts, Screws & Nuts: Stainless steel. All visible surfaces must have a #7 polished surface. Do not use metals that will be corrosive and incompatible with materials being fastened.
- H. Mixes: Use Epoxy to cast Baluster into concrete.

### 2.3 Fabrication

- A. Fabricate handrails and railing systems to comply with P&P ARTEC's specifications for project design, details, dimensions, finish, and anchorage, but not less than the structural requirements to support loading.
- B. All fabrication by P & P Artec technicians.

## **Part 3 - Execution**

### *3.1 Examination/Preparation*

- A. Examine system components, substrate and condition where railing systems are to be installed. Field measurements must be taken by a P&P ARTEC technician prior to fabrication.
- B. Review and coordinate setting drawings, templates, and related items that are to be embedded in concrete and masonry.

### *3.2 Installation*

- A. Railing installation by P&P ARTEC technicians only per approved shop drawings and conditions.
- B. Mounting of railing systems can be done in two ways – see details for available mounting options:
  - Side mount with baluster foot
  - Top mount with cover plate
- C. When possible achieve equal spacing of balusters. Baluster spacing per Artec approved shop drawings.

### *3.3 Cleaning and protection*

- A. Immediately upon completion of installation, clean all railing system surfaces using silicon free stainless steel cleaner. Do not use abrasive agents or harsh chemicals. Provide plastic sheet protection for all surfaces of completed installations to prevent damage during remainder of construction activities.