

SECTION 05 7300

P & P ARTEC “FOCUS” Stainless Steel Railing Systems

THROUGH GLASS POINT SUPPORTED TEMPERED LAMINATED GLASS GUARD ASSEMBLIES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Through Glass Point Supported Tempered Laminated Glass Guard Assemblies (Focus System), as manufactured and installed by P&P Artec, Inc.

1.2 RELATED SECTIONS

- A. Section 05500 - Metal Fabrications
- B. Section 05720 - Ornamental Handrails & Railings
- C. Section 08800 – Glazing

1.3 REFERENCES

- A. ASTM C 1048 – Standard Specification for Heat Treated Flat Glass – Kind HS, Kind FT Coated and Uncoated Glass
- B. NAAMM Metal Finishes Manual; national Association of Architectural Metal Manufacturers
- C. AAMA CW-12-84 Structural Properties of Glass
- D. ASTM E 2358-04 Standard specification for the Performance of Glass in Permanent Glass Railing Systems, Guards and Balustrades.

1.4 SYSTEM DESCRIPTION

- A. Performance Requirements for Guard Assembly:
 - 1. Support distributed load of 50 pounds per linear foot (0.73kN/M), applied horizontally at right angles in any direction to the top/grab rail.
 - 2. Support concentrated horizontal load of 200 pounds (0.89kN), applied in any direction at any point along top/grab rail.
 - 3. 50 lbs (0.22kN) on 1 sf (0.093m²) perpendicular to guard at any location
 - 4. Wind loads 25 psf or as otherwise specified.

5. These loads need not to be assumed to act concurrently.
6. Maximum deflection at top of glass is height/24.

1.5 SUBMITTALS

- A. Product Data: Submit Manufacturer's technical product data for railing components and accessories.
- B. Shop Drawings: Dimensioned drawings of railing assemblies indicating the following:
 1. Elevations; include joint locations, transitions, and terminations.
 2. Point support layout, details and attachment to support structure.
- C. Engineering Design Report: Calculations showing point support reactions and glass stresses (*If applicable*).
- D. Samples of manufacturer's finishes (As selected by Architect.)

1.6 QUALITY ASSURANCE

- A. Components and installation are to be in accordance with state and local building codes.
- B. All components and fittings are furnished by the same manufacturer.
- C. All glass to be fabricated by an approved temperer to a tolerance of 1/32" for the light size and hole locations.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials properly protected against damage to finished surfaces during transit.
- B. Inspect materials upon delivery for damage. Unless minor defects can be made to meet the Architect's specifications and satisfaction, damaged parts shall be removed and replaced.
- C. Store materials at building site under cover in a dry location.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: **P&P Artec, Inc (FOCUS SYSTEM)**
700 Creel Drive
Wood Dale, IL 60191
Tel: (630) 860-2990 Fax: (630) 860-5913
Email: Info@Artec-Rail.Com
www.artec-rail.com
- B. Manufacturers of equivalent products will be considered for substitution in accordance with provisions of Section 01630 - Product Substitution Procedures.

2.2 MATERIALS

- A. Stainless Steel Components: Conforming to ASTM A 666, Type 304

2.3 COMPONENTS

- A. Glazing: Fully tempered and laminated, ASTM C 1048 Kind FT, Quality q3. As specified in Section 08800
1. Thickness: 13/16" (3/8" T + .060 SGP / PVB / EVA + 3/8" T). Color: Clear or Low Iron. (Architect to specify.)
 2. Polished Edges and Dubbed Corners. (See section 008800.)
- B. Glass Top Cap – SS U Channel Top Cap 1" x 1-1/16" x 11 gauge 304 Stainless Steel with Brushed Finish.
- C. Point Supported Standoff fittings – 2-1/8" Round x 1-3/8" Thick 304 Stainless Steel with Brushed Finish.
- D. Through Glass Handrail Brackets: P&P Artec Focus Handrail Bracket, 2-3/8" Tall x 1" Wide x 1/2" Thick (achieves 1-1/2" clearance from bottom of handrail to spacer).
1. Material: Stainless Steel
 2. Fabrication: Machined
 3. Finish: Match handrail and Point Supported Standoff fittings finish.
- E. Handrail Tubing:
1. 1.5" OD, 2.5mm wall thickness, 304 Stainless Steel with 320 grit grain circumferential finish.
 2. Seamless welds at all directional changes.

F. Fasteners: 304 Stainless Steel.

2.4 FABRICATION

- A. Fabricate handrail assembly components to lengths and configurations complying with shop drawings.
- B. Machine joint edges smooth and plane to produce hairline seams when site assembled; supply concealed sleeve connectors for joints.
- C. Isolate dissimilar metals to prevent electrolytic action by applying primer to concealed surfaces of metal components.

PART 3 INSTALLATION

3.1

- A. Install handrails in accordance with manufacturer's recommended installation instructions and approved shop drawings. Standoffs shall be located to a tolerance of 1/32". All bushings, spacers, bearing pads and other components shown in the shop drawings must be properly installed.

3.2 CLEANING

- A. Clean railing surfaces with clean water and mild detergent. Do not use abrasive chemicals, detergents, or other implements that may mar or gouge the material.

3.3 PROTECTION

- A. Institute protective measures required throughout the remainder of the construction period to ensure that all the materials do not incur any damage or deterioration.
- B. Repair components damaged by subsequent construction activities in accordance with manufacturer's recommendations; replace damaged components that cannot be repaired to Architect's acceptance.

END OF SECTION