

GLASS RAILING CSI SPECIFICATIONS

GENERAL

SECTION INCLUDES

- A. Tempered glass railings.
- B. Clamped glass railing assemblies.

RELATED SECTIONS

- A. Section 05520 - Handrails and Railings: Metal railings without glass inserts.
- B. Section 08800 - Glazing: Glass used for other purposes.
- C. Section 08820 - Clamped Glazed Assemblies: Glass assemblies such as partitions and shelving that are held in place by friction clamps.

REFERENCES

- A. ASTM C 1048 - Standard Specification for Heat-Treated Flat Glass -- Kind HS, Kind FT Coated and uncoated Glass; 1997b.

SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- C. Engineering Calculations: For structural glass railing anchorage systems not previously tested in full-size mock-up by independent testing agency, provide design calculations substantiating capacity of anchoring system to withstand specified loadings; signed and stamped by professional engineer licensed in the State in which the project is located.
- D. Selection Samples: For each finish specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.

DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.

PRODUCTS

MANUFACTURERS

- A. Acceptable Manufacturer - Railing Components Other Than Glass: Taco Metals Inc; 50 N.E. 179th Street, Miami, FL 33162. ASD. Tel: (800) 653-8566. Fax: (800) 653-8564. Email: info@tacometals.com. www.tacometals.com.

- B. Substitutions: Not permitted.

- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

STRUCTURAL GLASS RAILINGS

- A. Railings: Tempered glass structural balusters mounted in aluminum bottom rail with metal top rail and accessory components.
 - 1. Design anchors to resist 50 pounds per linear foot (8.8 kN/m) uniform loading.
 - 2. Design anchors to resist 200 pounds (91 kg) concentrated load at any point 42 inches (1067 mm) above finish floor level.
 - 3. Mounting: Top of bottom rail flush with finished floor.
 - 4. Mounting: Bottom rail surface mounted; tapered rail profile.
 - 5. Mounting: Bottom rail surface mounted; square rail profile.
 - 6. Mounting: Bottom rail mounted on face edge of floor slab.
 - 7. Mountings: As indicated on drawings.

- B. Glass: Fully tempered ASTM C 1048 Kind FT quality q3.

- 1. Tint: None.
- 2. Tint: Gray.
- 3. Tint: _____.
- 4. Thickness: 1/2 inch (12 mm).
- 5. Thickness: 3/4 inch (19 mm).
- 6. Thickness: _____.

- C. Top Rails: Round cross section with rabbet for glass, with matching welded mitered corners, internal splice connectors, and end caps.

- 1. Diameter: 1-1/2 inches (38 mm).
- 2. Diameter: 4 inches (102 mm).
- 3. Diameter: _____.
- 4. Material: Extruded aluminum, unfinished.
- 5. Material: Extruded aluminum, etched to satin finish and anodized clear.
- 6. Material: Extruded aluminum, buffed and bright silver dip anodized.
- 7. Material: Extruded aluminum, buffed and bright gold dip anodized.
- 8. Material: Extruded aluminum, _____.
- 9. Material: Formed Type 304 stainless steel, polished to No.8 finish.
- 10. Material: Formed Type 304 stainless steel, No.4 brushed finish.
- 11. Material: Formed Type 260 brass, polished to No.8 finish.
- 12. Material: Formed Type 260 brass, No.4 brushed finish.
- 13. Material: Formed Type 280 Muntz metal, polished to No.8 finish.
- 14. Material: Formed Type 280 Muntz metal, No.4 brushed finish.
- 15. Material: Extruded Type 385 architectural bronze, polished to No.8 finish.
- 16. Material: Extruded Type 385 architectural bronze, No.4 brushed finish.

- D. Exposed Bottom Rails: Extruded aluminum structural member, clad with formed sheet metal to match top rail; with anchor plates and bolts.

GLASS RAILING CSI SPECIFICATIONS continued

CLAMPED GLAZED RAILINGS

A. Railings: Handrail supported by posts with glass infill attached with friction clamps.

1. Sizes and Configuration: As indicated on drawings.
2. Design to resist 50 pounds per linear foot (8.8 kN/m) uniform loading.
3. Design to resist 200 pounds (91 kg) concentrated load at any point 42 inches (1067 mm) above finish floor level.
4. Top Rail: Round, _____ diameter.
5. Posts: Square, _____.
6. Posts: Rectangular, _____.
7. Posts: Round, _____ diameter.
8. Post Mounting: Set into sleeves in floor.
9. Post Mounting: Surface mounted, with flange anchors.
10. Post Mounting: As indicated on drawings.
11. Post Mounting: _____.
12. Glass Mounting: Offset from posts with clamps mounted on front of posts.
13. Glass Mounting: Set between posts with clamps mounted on side of posts.
14. Finish: Match glass clamps.
15. Finish: _____.

B. Glass Clamps: Two piece precision machined grip type, with all fasteners.

1. For Side Mounting on Posts: Generally rectangular in shape.
2. For Side Mounting on Posts: Round-nosed.
3. For Side Mounting on Posts: Fan-shaped, with contrasting metal insert.
4. For Front Mounting on Posts: Circular.
5. For Glass to Glass Connections: Generally rectangular in shape, of configuration required.
6. Provide tamperproof security bolts to secure all clamps.
7. Provide security studs at _____.
8. Finish: Polished bright chrome on die casting.
9. Finish: Polished bright gold-colored on die casting.
10. Finish: Simulated brushed stainless steel on die casting; clear lacquer coated.
11. Finish: Simulated polished brass on die casting; clear lacquer coated.
12. Finish: Polished stainless steel.
13. Finish: Brushed stainless steel.
14. Finish: Powder coating on die casting, aluminum color.
15. Finish: Powder coating on die casting, black.
16. Finish: Powder coating on die casting, white.
17. Finish: Bright chrome with matte chrome insert.
18. Finish: Bright chrome with bright gold-colored insert.
19. Finish: Matte chrome with bright chrome insert.
20. Finish: Stainless steel with matte brass insert.

C. Glass: Fully tempered ASTM C 1048 Kind FT quality q3.

1. Tint: None.
2. Tint: Gray.
3. Tint: _____.
4. Thickness: 1/2 inch (12 mm).
5. Thickness: 3/4 inch (19 mm).
6. Thickness: _____.

EXECUTION

EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

INSTALLATION

A. Install in accordance with manufacturer's instructions and as indicated on drawings.

B. Structural Glass Railings: Anchor to substrate in strict accordance with tested anchorage system.

C. Remove protective film promptly so that it does not set.

D. Clean glass and metal surfaces.

PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.