

**SECTION 08 32 20
LAGUNA SERIES TOP HUNG SLIDING DOOR SYSTEM**

USE THIS SECTION WHEN SPECIFYING OVERHEAD SUPPORTED GLASS SLIDING DOORS. SECTION INCLUDES OVERHEAD SLIDING TUBE ASSEMBLY, MOUNTING BRACKETS, MOUNTING HARDWARE, ANTI-LIFT ROLLER ASSEMBLIES, DOOR STOPS, FLOOR GUIDE, AND ACCESSORIES. GLASS IS FURNISHED BY GLAZING SUB-CONTRACTOR AND SPECIFIED IN SECTION 08 80 00.

THIS SPECIFICATION SECTION IS A MANUFACTURER SPECIFIC PRODUCT SPECIFICATION USING THE PROPRIETARY METHOD OF SPECIFYING APPLICABLE TO PROJECT SPECIFICATIONS AND MASTER GUIDE SPECIFICATIONS. THIS SPECIFICATION SECTION SHOULD BE EDITED TO MEET SPECIFIC PROJECT DESIGN CRITERIA BY A KNOWLEDGEABLE CONSTRUCTION SPECIFIER. OPTIONS ARE SHOWN IN BRACKETS []. CHOOSE OPTIONS THAT MEET DESIGN CRITERIA, AND REMOVE BRACKETS AND UNUSED OPTIONS BEFORE PRINTING.

PART 1 – GENERAL

1.01 Section Includes

- A. Top Hung Glass Sliding Door.

1.02 Related Requirements

- A. Section 05 50 00 - Metal Fabrications: Supplementary supports for overhead track assembly, not specified in this section.
- B. Section 08 71 00 - Door Hardware.
- C. Section 08 80 00 - Glazing.

1.03 Reference Standards

- A. ASTM A 36 - Standard Specification for Carbon Structural Steel; 2005.
- B. ASTM A 240 - Stainless Steel Sheet and Plate.
- C. ASTM A 276 - Standard Specification for Stainless Steel Bars and Shapes; 2008a.
- D. ASTM A 307 - Standard Specification for Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength.
- E. ASTM A 314 - Standard Specification for Stainless Steel Billets and Bars for Forging.
- F. ASTM A 480 - General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip.
- G. ASTM A 563 - Standard Specification for Carbons and Alloy Steel Nuts.
- H. ASTM A 574 - Standard Specification for Alloy Steel Socket-Head Cap Screws.
- I. ASTM A 582 - Standard Specification for Free-Machining Stainless Steel Bars.
- J. ASTM A 666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar; 2003.
- K. ASTM A 283 - Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates; 2003 (Reapproved 2007).
- L. ASTM C 920 - Standard Specification for Elastomeric Joint Sealants; 2005.
- M. ASTM C 1036 - Standard Specification for Flat Glass; 2006.
- N. ASTM C 1048 - Standard Specification for Heat-Treated Flat Glass--Kind HS, Kind FT Coated and Uncoated Glass; 2004.
- O. ASTM F 593 - Standard Specification for Stainless Steel Bolts, Hex Cap Screws, and Studs.
- P. ASTM F 594 - Standard Specification for Stainless Steel Nuts.
- Q. ASTM F1554 - Standard Specification for Anchor Bolts, Steel, 36, 55, and 105-ksi Yield Strength.

R. GANA (GM) - GANA Glazing Manual; 2004.

Specifier's Note: Article below includes submittal of relevant data to be furnished by Contractor before, during, and after construction. Coordinate this Article with Architect's and Contractor's duties and responsibilities in Conditions of the Contract and Division 1 Submittal Procedures Section.

1.04 Submittals

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's descriptive literature for each component in all-glass entrance assembly.
- C. Shop Drawings: Drawings showing layout, dimensions, identification of components, and interface with adjacent construction. Coordinate shop drawings with shop drawings for glazing specified in Section 08 80 00.
 - 1. Include field measurements of openings.
 - 2. Include scaled (ie., 1 inch = 1 foot) floor plan and reflected ceiling plan of sliding panel partition layout. Provide dimensions, clearances, material call-outs, detail references, and schedule of part numbers, and quantities.
 - 3. Include elevations showing:
 - a. Appearance of all-glass entrance layouts.
 - b. Locations and identification of manufacturer-supplied door hardware and fittings.
 - c. Locations and sizes of cut-outs and drilled holes for other door hardware.
 - 4. Include details of:
 - a. Anti-Lift Top Rollers.
 - b. Top Sliding Tube.
 - c. Sliding Tube Mount Clamps.
 - d. Door Stops.
 - e. Bottom Floor Guide.
 - f. Hardware.
 - 5. Schedule: Listing of each type component in glass panel partition assemblies, including type, size, and thickness of glass used, and, cross-referenced to shop drawing plans, elevations, and details.
 - 6. Templates for fabrication of each type of glass panel partition assemblies.
- D. Selection Samples: Two sets, representing manufacturer's full range of available metal materials and finishes.
- E. Certificates: Contractor's certification that installer of sliding glass panel partition assemblies meets specified qualifications.
- F. Calculations: Design calculations for anchorage of overhead track to supporting member. Calculations shall include Engineer's seal, and signature. Engineer shall be licensed to practice in [California] [State in which the Project is located] [_____].
- G. Operation and Maintenance Data: For manufacturer-supplied operating hardware.

Specifier's Note: Article below to include qualifications, prerequisites, standards, limitations, and criteria to establish the requirements for the level of quality for products and workmanship for the work of this section. Coordinate Article with Division 1 Quality Assurance Section.

1.05 Quality Assurance

- A. Source Qualifications: CRL is ISO9001-2000 certified, with over 10 years of continuous manufacture of architectural glass panel sliding partition assemblies.
- B. Installer Qualifications: Minimum three years of experience installing entrance assemblies similar to those specified in this section.

C. Single source responsibility: Obtain all glass sliding entrance systems from a single manufacturer, to ensure full compatibility and warranty of parts.

1.06 Delivery, Storage, and Handling

A. Deliver all glass sliding entrances and related components in the manufacturer's original protective packaging. Do not deliver entrance units until the work is ready for their installation.

B. Inspect components for damage upon delivery. Unless minor defects in metal components can be made to meet the Architect's specifications and satisfaction, damaged parts should be removed and replaced.

1.07 Warranty

A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.

PART 2 – PRODUCTS

2.01 Manufacturers

A. Top sliding tube, clamps, anti-lift rollers with glass fittings, door stops, floor guides, and door hardware for Laguna Series Sliding Glass Doors:

C.R. Laurence Co, Inc. (CRL)

Tel: (800) 421-6144 or (323) 588-1281 Ext. 7700

Fax: (800) 587-7501 or (323) 584-5289

Email: architectural@crlaurence.com

www.crl-arch.com

2.02 Assemblies

A. Factory fabricated assemblies consisting of frameless glass panels fastened with top rollers with glass fittings in straight configuration as indicated on the drawings; CRL Laguna Series Sliding Door System is basis for design. Interior installations only.

1. Prepared for all specified hardware whether specified in this section or not.
2. Factory assembled to greatest extent practicable; may be disassembled to accommodate shipping constraints.

2.03 Overhead Tube

A. Overhead Top Sliding Tube Assembly: Brushed stainless steel prefabricated in straight configuration for supporting glass panels hung from Anti-Lift Rollers.

1. Tube size: Per architect's drawings and specifications (not to exceed 104 inches [2.6 m]). Cat. No. LS104BS. End Caps Cat. No. LS104CAP.

B. Roller Assembly: Laguna Series Anti-Lift Top Roller. Allow smooth movement of glass panels. Two (2) rollers per panel. Each carriage will allow for 1/8 inch (3.2 mm) up or down adjustment for final alignment.

Body: Brushed stainless steel. Rollers are supplied with both surface mount and flush mount fittings. Cat. No. LS300BS.

2.04 Door Hardware

Specifiers Note: Select type of door pulls; delete door pulls not used.

A. Door pulls:

1. Thru-Glass Pull FP214BS. Brushed stainless steel.
2. Ladder Pull. (Specify length and finish).
3. Frameless Sliding Door Handle SGH8. (Specify finish; Chrome, Lacquered Brass, Brushed Nickel, or Satin Chrome).

2.05 Materials

- A. Glass: As specified in Section 08 80 00 Glazing; fully tempered. Note: Laminated glass should not be used with CRL Wedge-Lock rails.
1. Thickness: 3/8 inch (10 mm) or 1/2 inch (12 mm).
 2. Laguna Series Slider Size: [_____]. Maximum panel width: 53-1/2 inches (1.36 m). Maximum height: 98-7/16 inches (2.50 m). Maximum panel weight not to exceed 220 pounds (100 kg).

Specifier's Note: Use the following paragraph if glass panels are a part of this Section.

B. Glass: Tempered float glass meeting requirements of ASTM C 1036, Type I, Quality Q3, fully tempered in accordance with ASTM C 1048, Kind FT, and as follows:

1. Thickness: 3/8 inch (10 mm) or 1/2 inch (12 mm).
2. Color: Clear, Class 1.
3. Prepare glazing panels for indicated fittings and hardware before tempering.
4. Polish edges that will be exposed in finished work to bright flat polish.
5. Temper glass materials horizontally; visible tong marks or tong mark distortions are not permitted.

C. Stainless Steel Components:

1. Top Sliding Tube Wall Mount Clamp. Cat. No. LS302BS
2. Top Sliding Tube Glass Mount Clamp. Cat. No. LS303BS
3. Door Stops. Cat. No. LS105LBS left hand. Cat. No. LS105RBS right hand.
4. Bottom Floor Guide. Cat. No. LS307BS.
5. Conforming to ASTM A 666, Type 316.

D. Sealant: One-part silicone sealant, conforming to ASTM C 920, Type S, Grade NS, Class 50, Use NT, G and A, clear [Color: _____, or as selected from manufacturer's standard color selection].

Specifier's Note: Use the following Kit when Wood Doors are required in place of glass.

2.06 Adaptor Kit for Wood Doors

- A. For Wood Doors from 1-3/8 to 1-3/4 inches (35 to 45 mm) thick:
1. Finish: Brushed stainless;
 2. Includes; Mounting Bolts, Bracket Spacers, and Floor Guide.
 3. Kit Cat. No. LSWMADT.

2.07 Finish

- A. Brushed Stainless

PART 3 – EXECUTION

3.01 Examination

- A. Verify that supports for overhead tube assembly are acceptable.
- B. Verify floor flatness of 1/8 inch in 10 feet (3 mm / 3 m), non-cumulative.
- C. Verify wall plumbness of 1/8 inch in 10 feet (3 mm / 3 m), non-cumulative.
- D. Do not begin installation until substrates and openings have been properly prepared.
- E. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.02 Preparation

- A. Clean substrates thoroughly prior to installation.
- B. Prepare substrates using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.03 Installation

- A. Install top tube assembly, rollers to panels, hardware, and mounting assemblies in accordance with manufacturer's written instructions, and approved shop drawings.
- B. Install glass and accessories in accordance with GANA Glazing Manual.
- C. Tolerances:
 - 1. Horizontal Components and Sight Lines: Not more than 1/8 inch in 10 feet (1:1000) variation from level, non-cumulative.
 - 2. Vertical Components and Sight Lines: Not more than 1/8 inch in 10 feet (1:1000) variation from plumb, non-cumulative.
 - 3. Variation from Plane or Indicated Location: Not more than 1/16 inch (1.5 mm).
- D. Installation of door hardware not supplied by glass panel sliding partition manufacturer is specified in Section 08 71 00.

3.04 Adjusting

- A. Adjust glass panels, to operate correctly, without binding.
- B. Adjust door hardware for smooth operation.

3.05 Cleaning

- A. Clean door and frame surfaces after installation, exercising care to avoid damage to the finish.
- B. Clean glass surfaces after installation, complying with requirements contained in the "Glass and Glazing" section for cleaning and maintenance. Remove excess glazing sealant compounds, dirt and or other substances

3.06 Protection

- A. Institute protective measures required throughout the remainder of the construction period to ensure that the all glass entrances do not incur any damage or deterioration, other than normal weathering, at the time of acceptance.

END OF SECTION

