

SECTION 08122

ALUMINUM DOOR FRAMES

PART 1 - GENERAL

1.1 SUMMARY

- A. **Section Includes:** Prefinished aluminum door frames for interior use; fire-rated and non-fire-rated.
- B. **Related Sections:**
 - 1. Section 08210 - Flush Wood Doors: Flush wood doors installed in aluminum door frames.
 - 2. Section 08710 - Finish Hardware: Door hardware for aluminum frames.
 - 3. Section 09250 - Gypsum Board Assemblies: Gypsum board substrate to receive aluminum frames.

1.2 REFERENCES

- A. **Industry Standards:**
 - 1. AAMA 607.1: Voluntary Guide Specifications and Inspection Methods for Clear Anodic Finishes for Architectural Aluminum.

1.3 SUBMITTALS

- A. **Product Data:** Submit manufacturer's specifications, standard details, and installation recommendations for components of aluminum frames required for project, including data that products have been tested and comply with fire rating requirements.
- B. **Shop Drawings:** Submit shop drawings for fabrication and installation of aluminum frames: including elevations, detail sections of typical composite members, anchorages, reinforcement, and expansion provisions. Use Architect's door mark system.
- C. **Samples:** Submit two (2) sets of samples of specified type and color of aluminum finish, on 12" long sections of extrusions. Where color or texture variations are expected, include two (2) or more units in each sample set indicating extreme limits of variations.

1.4 QUALITY ASSURANCE

- A. **Single Source Responsibility:** Provide aluminum frames and accessories produced by a single manufacturer.
- B. **Fire-Rated Frames:** Where fire-rated frames are indicated, provide frame assemblies that have been tested and certified for specified exposure by an agency acceptable to governing authorities.
 - 1. Provide labels permanently fastened on each frame that is within size limits established by NFPA and the testing authority.
 - 2. Provide labels for openings as scheduled on Drawings.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. **Deliver items** cardboard-wrapped or crated to provide protection during transit and job storage.
 - 1. Provide additional protection to prevent damage to finish of factory-finished items.
- B. **Inspect items** upon delivery for damage. Minor damages may be repaired provided repaired items are equal in all respects to new work and acceptable to Architect; otherwise, remove and replace damaged items as directed.
- C. **Store items** at building site under cover on minimum 4-inches high wood blocking. Avoid use of non-vented plastic or canvas shelters, which could create humidity chamber. If cardboard wrapper becomes wet, remove immediately. Provide ¼-inch spaces between stacked doors to promote air circulation.

1.6 ENVIRONMENTAL REQUIREMENTS

- A. **Do not begin installation** of frames or doors until area of work has been completely enclosed and interior is protected from the elements.
- B. **Maintain temperature and humidity** in areas of installation within reasonable limits, as close as possible to final occupancy standards. If necessary, provide artificial heating, cooling, and ventilation to maintain required environmental conditions.

PART 2 - PRODUCTS

2.1 EXTRUDED ALUMINUM DOOR FRAMES

- A. **Frames (Non-Fire-Rated):**
 - 1. Face Profile: 1½" typical, or as otherwise indicated on drawings
 - 2. Return: 9/32"
 - 3. Throat Size: as indicated on drawings.
 - 4. Approved Products/Manufacturers:
 - a. "RACO Classic Freestanding Frames, Series 487 "; "RACO ALTURA, INC"(800) 272-7226.
 - b. "Premier 487 Series"; ATLAS ARCHITECTURAL METALS, INC. (800) 932-0275.
- B. **Frames (Fire-Rated):**
 - 1. Face Profile: 1½".
 - 2. Return: 9/32"
 - 3. Throat Size: as indicated on drawings.
 - 4. Fire Rating: 90 Minutes.
 - 5. Approved Products/Manufacturers:
 - a. "RACO Classic Freestanding Frames, Series 487 "; "RACO ALTURA, INC"(800) 272-7226.
 - b. "Premier 487 Series"; ATLAS ARCHITECTURAL METALS, INC. (800) 932-0275.
- C. **Materials:** Aluminum extrusions shall conform to ASTM B221, Type 6063-T5 alloy; to assure compliance with tight dimensional tolerances and maintain color uniformity.
- D. **Fabrication:**

1. Jamb and Head Members: Aluminum extrusions, accurately mitered for hairline joints at corners, with clip angle connections.
 2. Stops: Continuous, snap-on aluminum extrusions, with continuous sound seal.
 3. Separate Studs: Mill finish aluminum extrusions, continuous at each jamb, designed for screw attachment to partition and arranged to (1) securely anchor frame assembly and (2) provide solid attachment for hinges.
 4. Hardware Preparations: Prepare and reinforce frames in accordance with frame manufacturer's standard methods for hardware to templates furnished by hardware supplier as specified in "Section 08710 - Door Hardware".
 5. Fasteners: As recommended by the frame manufacturer for proper assembly and installation of the frames without exposed fasteners.
- E. **Factory Finish:** AA-M12C22-A31, Architectural Class II, clear anodic coating 0.010 mm or thicker complying with AAMA 607.1.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. **Project Conditions:** Examine project conditions and verify that the work of this Section may properly commence. Do not proceed with installation until unsatisfactory conditions have been corrected.
- B. **Wall Thickness:** Verify wall thickness does not exceed standard tolerances allowed by specified frame throat size.

3.2 INSTALLATION

- A. **General:** Comply with manufacturer's instructions and recommendations for installation of aluminum frames.
- B. **Sequence:** Frames shall be installed after walls have been finished (painted, wall covering, etc.). Coordinate opening dimensions and stud framing with installer of gypsum drywall.
- C. **Set units plumb,** level, and true to line, without warp or rack of framing members. Anchor securely in place, separating aluminum and other corrodible metal surfaces from sources of corrosion or electrolytic action at points of contact with other materials.
- D. **Drill and tap** frames and apply closers, hinges, lock strikes, and surface-mounted hardware items, complying with hardware manufacturer's instructions and template requirements. Use concealed fasteners wherever possible.

3.3 ADJUST AND CLEAN

- A. **Adjust operating hardware** to function properly, without binding, and to provide tight fit at contact points.
- B. **Clean completed system,** inside and out, promptly after erection and installation of doors. Remove excess dirt, and other substances from aluminum surfaces. Touch-up with manufacturer furnished matching enamel finished surfaces which are marred and stained; remove and replace items, which are damaged and cannot be acceptably touched-up.

- C. **Completed installations** shall be properly located and securely anchored, plumb, rigid and straight.
 - 1. Sound seals shall be complete and continuous, without gaps.
 - 2. Metal joints shall be flush hairline joints in full contact for their entire length.
 - 3. Color and texture variation of adjoining members shall not exceed one-half of the extreme variation indicated by approved samples.

3.4 PROTECTION

- A. **Provide protection** and other precautions required to assure that frames and doors will be without damage or deterioration upon Substantial Completion of the Project.

END OF SECTION