

**SECTION 08 41 13  
ALUMINUM STOREFRONT**

**PART 1 - GENERAL**

**1.01 SCOPE:**

- A. Provide all of the labor, materials, equipment, and services required to furnish and install the aluminum storefront.

**1.02 QUALITY ASSURANCE:**

- A. Engage an experienced installer who has completed installation of aluminum storefront and entrances similar in design and extent to those required for the project and whose work has resulted in construction with a record of successful in-service performance.
- B. Single-source responsibility: Provide aluminum storefront from one source and produced by a single manufacturer.
- C. Finishes: All finishes shall be in accordance with the standards of the:
  - 1. American Architectural Manufacturers Association (AAMA).

**1.03 SUBMITTALS:**

- A. Prior to fabrication, submit to the Architect for review the following:
  - 1. Shop drawings showing the following:
    - a. A description of all materials, sizes, dimensions, and gauges.
    - b. Size of openings.
    - c. Method of fabrication and assembly.
    - d. Method of joining.
    - e. Any concealed stiffening and reinforcement.
    - f. Type of spacing of fasteners.
    - g. Method of providing for expansion and contraction.
    - h. Method of attachment to adjacent construction.
    - i. Method of glazing.
    - j. Location of sealant.
  - 2. Physical Sample: An aluminum corner section of system in the color and finish proposed to be provided. Sample shall show complete range of light and dark of color finish.

**1.04 PROJECT CONDITIONS:**

- A. Field measurements: Check actual openings by accurate field measurement before fabrication. Show recorded measurements on final shop drawings. Coordinate fabrication schedule with construction progress to avoid delay of work.

**1.05 DELIVERY, STORAGE, AND HANDLING:**

- A. Deliver aluminum storefront components in the manufacturer's original protective packaging.
- B. Store aluminum components in a clean dry location away from uncured masonry or concrete. Cover components with waterproof paper, tarpaulin or polyethylene sheeting in a manner to permit circulation of air.
- C. Stack framing components in a manner that will prevent bending and avoid significant or

permanent damage.

**1.06 WARRANTY:**

- A. Manufacturer's warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under the Contract Documents.
  - 1. Beneficiary: Issue warranty in the name of the project Owner.
  - 2. Warranty period:
    - a. 2 years commencing from the Date of Substantial Completion.
    - b. Installation: Warranted against defects for 1 year from the Date of Substantial Completion.

**PART 2 - PRODUCTS**

**2.01 EXTERIOR STOREFRONT FRAMING FOR WINDOWS:**

- A. Product/manufacturer:
  - 1. TriFab VG 451(T) as manufactured by Kawneer Co.
  - 2. Comparable product as manufactured by:
    - a. Vistawall.
    - b. YKK.
- B. Description:
  - 1. Tube sizes:
    - a. 2" x 4-1/2".
    - b. 2 1/2" x 6".
    - c. See Drawings.
  - 2. Material: Extruded aluminum, ASTM B 221; 6063-T5 alloy and temper.
  - 3. Wall thickness: Each framing member shall provide structural strength to meet specified performance requirements.
  - 4. Fasteners: Stainless steel.
  - 5. Gaskets: EPDM rubber.
  - 6. Perimeter anchors: Aluminum. Where steel anchors are used, provide insulation between steel material and aluminum material to prevent galvanic action.
  - 7. Thermal barrier: 1/4" separation consisting of two parts chemically curing, high density polyurethane which is mechanically and adhesively joined to aluminum store front sections.
  - 8. Finish: Clear anodized.
- C. Glazing: 1" insulating. See Section 08 80 00.

**2.02 ALUMINUM SILL PANS AND END DAMS:**

- A. Materials:
  - 1. Aluminum sheet 5050 alloy with finish to match storefront.
  - 2. Break and fabricate shapes before finishing.
  - 3. Thickness: .073".
- B. Fasteners: Stainless steel screws of proper size for the application.

**2.03 ACCESSORIES – INSECT SCREENS:**

- A. GENERAL:
  - a. Field measurements: Take field measurements prior to preparation of shop drawings and production to ensure proper fitting. Show recorded measurements on submittals and coordinate production schedule with construction process to avoid delay.
  - b. Shop drawings showing complete profile, dimensions, and details to be provided for review and approval.
  - c. Store insect screens in a clean and dry protected area protected.
  - d. Install insect screens as per manufacturer's instructions.
  - e. Submit a written warranty executed by the manufacturer, agreeing to repair or replace materials that fail in workmanship within specified warranty period.
- B. PRODUCT.
  - a. Manufacturer:
    - 1. Phifer
    - 2. Or Approved Equal.
  - b. Type – TuffScreen Heavy-Duty Mesh Screen - Fixed
  - c. Material – Vinyl-coated polyester insect screen (tear and puncture resistant)
  - d. Size and location- See Drawings.
  - e. Color – To be selected by Architect.

**PART 3 - EXECUTION**

**3.01 GENERAL:**

- A. Installation shall be in accordance with the Contract Documents, the approved submittals, and the manufacturer's instructions.

**3.02 FABRICATION:**

- A. Shop prefabricates all frames into complete units, verifying all measurements at the job site prior to fabrication.
- B. Fabricate in strict accordance with the approved submittals and the manufacturer's published recommendations.
- C. Accurately miter and fit all members to hairline joints.
- D. Weld or mechanically fasten along entire line of contact on the unexposed side.
- E. No discoloration on the face after anodizing will be acceptable.

**3.03 ERECTION:**

- A. Install all members with adequate provision for setting, expanding, and contracting to occur without breaking glass.
- B. Firmly anchor all members, using all anchoring devices required to ensure positive attachment of the members for long life under hard use.
- C. All items shall be set in their correct locations and shall be level, square, plumb, and at proper elevations and in alignment with other work.
- D. All joints between interior metal and masonry and between interior glass framing and mullion

members shall be tightly caulked in order to secure a watertight job.

- E. All metal shall be screwed in place, using backing, masonry plugs, or anchor straps as required.
- F. Where moldings are joined, they shall be accurately cut and fitted to result in a tightly closed joint.
- G. Protection:
  - 1. Wherever aluminum is in contact with steel, concrete, or other material potentially creative of electrolytic action, provide all required permanent isolation of the aluminum by back painting with first quality bituminous paint or by such other isolation as is approved in advance by the Architect.
  - 2. Protect all finished surfaces as necessary to prevent damage during progress of the Work.

**3.04 CLEANING UP:**

- A. Immediately prior to acceptance of the work, remove all protective materials from the storefront system and clean all exposed members.
- B. Do not use abrasives or harmful cleaning agents.

**- END OF SECTION -**