Specification and installation instructions

Series 4500 blast-resistant aluminum window (fictional product) · Specification excerpt and installation sequence

SECTION 08 51 13. ALUMINUM WINDOWS

Part 1. General

1. Summary: fixed aluminum windows with laminated insulating glass, designed to resist the blast loads shown on the drawings.
2. Submittals: product data, shop drawings for each opening type, test reports, and installer qualifications.
3. Quality assurance: installer with five years of experience and three completed projects of similar size.
4. Warranty: ten years on finish, five years on insulating glass seal, two years on installation.

Part 2. Products

1. Frames: extruded aluminum alloy 6063-T6, thermally broken, minimum wall thickness 0.125 inch.
2. Glass: laminated insulating units with a structural silicone bite as shown on the approved shop drawings.
3. Anchors: steel anchors sized by the window manufacturer's engineer for the substrate at each opening.

Part 3. Execution

1. Examine openings before installation. Do not proceed until out-of-tolerance conditions are corrected.
2. Install plumb, level, and true, within 1/8 inch in 10 feet.
3. Protect installed work until substantial completion.

INSTALLATION SEQUENCE

Read every step before starting. Two installers are required for any unit over 75 pounds.

1. **Check the opening.** Measure width at the head, center, and sill, and height at both jambs and center. Compare each to the shop drawing. Stop if any dimension differs by more than 1/4 inch.
2. **Check the substrate.** Confirm the anchor substrate matches the shop drawing. Anchor size and spacing change with the substrate.
3. **Set the sill.** Apply a continuous bead of sealant at the sill and set the sill flashing with end dams turned up 1 inch.
4. **Set the frame.** Lift the frame onto setting blocks at the quarter points (Figure 2, item A). Shim at each anchor location only.
5. **Plumb and square.** Check the diagonals. They must match within 1/8 inch before any anchor is tightened.
6. **Anchor.** Install anchors in the order shown in Figure 3, starting at the sill corners. Torque each to the value on the shop drawing and mark it with paint.
7. **Seal.** Install backer rod and sealant at the full perimeter. Tool the joint to a concave profile.
8. **Inspect.** Complete the opening checklist, photograph the anchors before interior trim covers them, and sign.

DO NOT

- Do not shim between anchor locations. The frame must be free to deflect as tested.
- Do not substitute anchors. The blast rating applies only to the tested anchor.
- Do not remove the glass protection film until final cleaning.