HERRERO™

Steel Doors & Windows

INSTALLATION MANUAL
RESIDENTIAL U.S.

HERRERO®
Steel Doors & Windows

Expert HERRERO® Installation: Steel Doors & Windows

Guaranteed Quality

At Herrero Steel Doors and Windows, we know that installing premium steel windows and doors — especially in historic and architecturally sensitive projects — requires precision, expertise, and respect for detail. That's why we offer a comprehensive installation service through our network of Installation Specialists Certified by Herrero

These are not just ordinary installers. Each Herrero Specialist is part of a carefully selected group of highly trained professionals who share our commitment to quality, durability, and craftsmanship. Every installer goes through a strict vetting process to ensure they have the advanced skills required to manage even the most complex projects with confidence.

Unparalleled Expertise for Custom Projects

Herrero has extensive experience in large-scale, demanding steel door and window installations — from modern custom builds to the renewal of windows and doors in historic buildings. Our specialists are trained to work with delicate materials and conditions, ensuring that architectural integrity and original design intent are fully preserved.

They understand the unique challenges of historic properties, and have the technical ability to deliver precise installations that replicate and complement existing structures, without compromise.

Peace of Mind with Every Installation

At Herrero, we believe the installation process is as important as the product itself. By choosing our approved Herrero Installation Specialists, you can rest assured that your steel doors and windows will be installed to the highest standards of safety, performance, and aesthetics.

- Guaranteed quality and durability
- Respect for architectural integrity
- Specialists trained and approved by Herrero

Invest in peace of mind and choose Herrero for your next project. Contact us today to connect with a Herrero Installation Specialist and discuss your requirements.

HERRERO™
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Installation Manual (U.S. Market)

This guide outlines industry-standard practices for installing HERRERO steel doors and windows using three methods:

- Block Frame (through-frame screws),
- Tab-Mount (anchoring tabs), and
- Nailing Flange/Fin (continuous perimeter flange).

Because site conditions vary, the installer of record is responsible for verifying structural support, rough-opening preparation, and local code compliance (building, energy, fire, egress, ADA/accessible routes, wildland-urban interface, coastal, and storm/water provisions). When in doubt, consult a licensed contractor/installer, a building inspector, or a professional engineer.

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1) Scope & Intended Use

- Applies to factory-assembled HERRERO steel door and window frames for exterior walls (and interior partitions where applicable).
- Suitable substrates: wood framing, steel framing, concrete/masonry (with appropriate anchors), and structural openings with proper moisture and thermal management.
- Methods covered:

1. Block Frame (Through-Frame Screws) – screws pass through the steel frame and anchor into the structure.
2. Tab-Mount (Anchoring Tabs) – factory-welded tabs anchor to surrounding structure.
3. Nailing Flange / Fin (Continuous, laser-welded perimeter flange) – mechanically fastened flange to the sheathing/studs; highest water-management potential when integrated with flashing and WRB correctly.

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2) Roles & Responsibilities

- Owner/GC: Confirms opening sizes, wall assembly, and code requirements; ensures rough openings (RO) are plumb/square/level and adequately supported.
- Installer: Performs accepted trade practices; follows this manual and sealant/flashing manufacturers' instructions; documents the installation.

- Inspector/AHJ: Has final authority. If conflicts arise, the AHJ's direction governs.

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3) Safety & Handling

- Wear PPE: cut-resistant gloves, eye protection, long sleeves, safety boots.
- Team-lift large units; use suction cups where appropriate; never lift by the glazing beads.
- Store on flat, dry dunnage; protect factory finishes from abrasion and solvents.
- Keep fasteners, shims, and tools clear of glass edges.

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4) Terminology

- RO (Rough Opening): The framed opening in the wall.
- Unit: The HERRERO frame (and sash/leaf where applicable). May include transoms/sidelites.
- WRB: Weather-resistive barrier (house wrap, self-adhered membrane, etc.).
- Flashing: Pan, sill, jamb, head membranes, or metal flashings integrated with WRB.
- Backer Rod & Sealant: Closed-cell foam rod and compatible sealant forming the exterior joint.
- Setting Blocks/Glazing Shims: Support glass weight and center the IGU/Lite.

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5) Tools & Materials (Typical)

- Laser level, 6–8 ft. level, framing square, tape, plumb bob, feeler gauges.
- Non-compressible composite shims; stainless screws; appropriate anchors for substrate.
- Sealants (neutral-cure silicone or polyurethane) compatible with HERRERO finish & WRB.
- Self-adhered flashing membranes, preformed sill pans or sheet-metal pans.
- Backer rod (proper diameter), expanding low-expansion foam (as specified), mineral wool.
- Corrosion-resistant fasteners: #10–#14 stainless or coated, length to achieve embedment.
- Touch-up paint kit approved by HERRERO.

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6) Pre-Installation Checklist

1. Verify RO vs. shop drawings: width/height/diagonals (≤ 1/8" variance per 6 ft.).
2. Confirm level threshold/sill (≤ 1/16" per 2 ft.), plumb jambs (≤ 1/8" per 6 ft.).
3. Confirm wall flatness; plane tolerance ≤ 1/8" over 6 ft.
4. Confirm nailing flange/tab locations from shop drawings; pre-plan anchor layout.

5. Dry-fit unit; check reveal and swing/clearances.
6. Protect finished surfaces with removable film/tape (non-reactive, no residue).

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7) Rough Opening Prep & Water Management (All Methods)

- Sill pans: Install a preformed or fabricated pan. Ensure back dam ≥ 1/2", end dams ≥ 1", positive slope to exterior. Seal all corners.
- WRB Integration: Shingle-lap principle—sill first, then jamb flashings, then head flashing. Maintain continuous drainage plane and weeps.
- Substrate: Remove debris; repair damaged sheathing/studs; confirm solid backing at fastening points.

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8) Shimming & Fastening Principles (All Methods)

- Shims: Place at hinge/pivot points, lock points, mullions, and within 4–6" of corners; spaced ≤ 16"–24" O.C. unless noted.
- Fasteners: Do not overtighten; maintain frame square/true. Pre-drill steel frames where required. Use corrosion-resistant screws/anchors with required embedment.
- Thermal/Water Paths: Avoid creating water dams. Seal penetrations; maintain weeps.

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9) Method A — Block Frame (Through-Frame Screws)

Use case: Retrofits, masonry, or when interior trim conceals fasteners.
Pros: Direct, rigid anchorage; flexible for varied substrates.
Consider: Visible plugs/caps if exposed; careful sealing at penetrations.

Steps

1. Prep: Confirm pan and WRB installed. Dry-fit unit; mark hinge/lock shim points.
2. Place Unit: Set onto sill pan with temporary shims. Center uniformly in RO.
3.

4. Plumb/Level/Square: Start at hinge jamb (doors) or fixed jamb (windows). Tack screw through pre-drilled frame holes at shim locations.
5. Anchor: Drive screws through frame into structure per layout: typically 6–8" from corners, at hinge/lock points, then ≤ 16"–24" O.C. Check shop drawings for exact pattern.
6. Adjust: Check reveals and operation after each series of fasteners. Do not rack the frame.
7. Seal Penetrations: Back-seal screw holes with compatible sealant; install finish plugs/caps.
8. Insulate: Low-expansion foam or mineral wool in the perimeter cavity (do not overfill).
9. Exterior Joint: Backer rod + sealant; tool to concave profile; maintain weeps.
10. Threshold/Sill: Seal continuous bed under threshold; provide end dams; verify positive slope out.

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10) Method B — Tab-Mount (Anchoring Tabs)

Use case: New construction or remodels where you want concealed fasteners and clean sightlines.
Pros: Clean interior/exterior frame faces.
Consider: Tabs must align with structural backing; pre-plan blocking.

Steps

1. Locate Tabs per shop drawings. Add structural backing at each tab location.
2. Set Unit on sill pan with temporary shims.
3. Plumb/Level/Square the frame. Clamp if needed to hold alignment.
4. Fasten Tabs to framing/backing using specified screws/anchors; start at hinge/fixed jamb; verify reveals.
5. Progress O.C.: Fasten remaining tabs ≤ 16"–24" O.C. and within 6–8" of corners.
6. Re-check Operation after each tab set; adjust shims for consistent reveals.
7. Insulate & Seal per Section 12; maintain weeps and drainage plane.

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11) Method C — Nailing Flange / Fin (Continuous Perimeter Flange)

Use case: New construction with sheathing + WRB; best water management when integrated correctly.
Pros: Continuous flange helps shed water; straightforward fastening to sheathing/studs.
Consider: Critical to integrate flange with WRB and flashings.

Steps

1. WRB Prep: Cut an inverted "Y" at the head to create a flap; temporarily tape flap up. Install sill pan.
2. Dry-Fit and mark flange holes; add solid backing where required.
3. Set Unit on sill pan, shim, and center in RO.
4. Tack Fasteners: Start at hinge/fixed jamb mid-height, then opposite side; keep frame square.
5. Full Fastening: Install remaining fasteners at flange slots/holes ≤ 6"–8" from corners and ≤ 6"–8" at hinges/locks, then ≤ 6"–12" O.C. per engineering/shop drawings.
6. Flashing Integration:
   - Sill: Seal flange to sill pan.
   - Jambs: Self-adhered flashing over flange and onto WRB (shingle lap over sill).
   - Head: Head flashing (drip cap) over flange; lap the WRB head flap back over the head flashing and tape.
7. Insulate & Seal per Section 12.

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12) Perimeter Insulation & Sealant Joint (All Methods)

- Insulation: Use low-expansion foam or mineral wool to fill the gap ~50–75%. Avoid bowing the frame.
- Backer Rod: Select diameter ~25% larger than joint width for correct compression.
- Sealant: Apply continuous bead to exterior; tool to a concave profile (2:1 width-depth rule; min. 3/8" width typical). Ensure compatibility with finishes and WRB.
- Interior Air Seal: As specified (sealant or membrane) to improve energy performance.

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13) Thresholds, Sills & Weeps (Doors)

- Maintain positive slope to exterior. Do not block weeps with sealant or debris.
- For pivot doors, confirm clear floor area, bottom clearance, and sill sealing at pivot boxes.
- At wet areas/coastal zones, consider additional sub-sill metal pans and secondary seal paths.

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14) Glazing Considerations

- Use setting blocks at quarter points unless otherwise engineered.

- Place glazing shims to maintain bite and sightline; avoid point loads on glass edges.
- Verify glazing bead engagement and weather-seal continuity.

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15) Tolerances & Quality Checks

Frame

- Plumb: ≤ 1/8" per 6 ft.
- Level: ≤ 1/16" per 2 ft.
- Square (diagonals): ≤ 1/8" per 6 ft.
- Bow/Twist: ≤ 1/8" over 6 ft.

Operation (Doors/Operable)

- Uniform reveals (typically 1/8"–3/16").
- Smooth latch/lock engagement; no rub/bind.
- Weatherstrips fully contact.

Water Management

- Flashing continuity at sill/jamb/head.
- Weeps unobstructed.
- Sealant tooled and continuous, no voids/fish-mouths.

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16) Common Mistakes to Avoid

- Skipping sill pans or mis-lapping flashing (reverse laps).
- Over-foaming that bows frames.
- Overtightening fasteners causing frame rack.
- Blocking/drilling through weeps.
- Mixing incompatible sealants with factory finishes.

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17) Special Notes for California Projects

- Energy/Title 24: Coordinate U-factor, SHGC, and NFRC labels with project documentation.
- Egress & Safety Glazing: Bedrooms, near doors, tubs/showers—use required safety glass and clear opening sizes.

- Wildland-Urban Interface (WUI) (where applicable): Confirm glazing, screens, and vent details meet local WUI requirements.
- Accessibility (when required by occupancy): Threshold heights/clearances and hardware reach ranges.

These are general coordination topics; always follow the local AHJ and project specifications.

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18) Finishing & Protection

- After installation, remove protective films promptly per instructions.
- Touch up minor nicks with HERRERO-approved coatings.
- Do not use acidic/alkaline cleaners or abrasive pads on finishes or glass.

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19) Maintenance (Summary)

- Clean frames/glass with pH-neutral products; rinse and dry.
- Inspect and clear weeps every season.
- Check sealant joints annually; repair as needed.
- Lubricate hinges/locks per hardware manufacturer.
- Warranty Notice: Lack of routine cleaning and maintenance can void warranty.

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20) Documentation to Retain

- Shop drawings and approved submittals.
- Fastener/anchor schedules; sealant and flashing product data.
- Photos of each step (pan, flashing laps, shims, fastener locations, finished joints).
- Final QA checklist (signed) and operation confirmation.

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21) Method Quick-Reference (Cheat Sheet)

- Block Frame: Versatile; visible plugs; great for masonry/retrofit.
- Tab-Mount: Clean sightlines; requires backing alignment.
- Nailing Flange: Best water integration with WRB; ideal for new construction.

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22) Appendix A — Example Fastener Layouts (Typical)

Always defer to HERRERO shop drawings and engineered calculations when provided.

Doors (per jamb/head/sill)

- Corners: first fastener 6–8" from each corner.
- Hinge/Lock points: at or adjacent to hardware positions.
- Field spacing: ≤ 16–24" O.C. depending on unit size/substrate.

Windows (fixed/operable)

- Mullions and hardware points get additional shims/fasteners.
- Head and sill spacing as engineered.

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23) Appendix B — Sealant Joint Design

- Minimum joint width typically 3/8" for exterior.
- Depth control via backer rod to maintain 2:1 width/depth (or manufacturer's spec).
- Use primer where required by sealant manufacturer.
- Tool to smooth, concave profile for shedding water.

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24) Appendix C — Diagram Key (to be illustrated)

1. RO & Sill Pan Anatomy (back dam, end dams, slope).
2. WRB/Flashing Shingle-Lap Sequence.
3. Shim & Fastener Locations — Block Frame.
4. Shim & Tab Locations — Tab-Mount.
5. Flange Integration — Nailing Fin (sill/jamb/head).
6. Threshold Weep Paths & Sealant Beds (doors).
7. Pivot Box & Bottom Seal Details.
8. Mullion Reinforcement & Sealant Paths.
9. Backer Rod & Sealant Cross-Section.
10. Typical Joint Width/Depth Examples.
11. Window Head Drip Cap & WRB Head Flap.
12. Interior Air-Seal vs. Exterior Weather-Seal.

(HERRERO to add branded line art or photos at these call-outs.)

25) Legal & Warranty Notices (Summary)

- Do not copy other manufacturers' documents. This manual is original to HERRERO and reflects widely accepted industry practices.
- Installation must follow this manual + site-specific approved shop drawings + local codes.
- Use only compatible sealants/membranes and corrosion-resistant fasteners.
- Improper installation, lack of maintenance, or incompatible products may void the warranty.
- Keep records and photo documentation for warranty review.

Contact

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