

Section 084113- NanaWall® HSW50 - Thermally Broken Aluminum Framed Individual Panel Sliding System

Part 1 - General

1.01 Summary

A. Section Includes: Individual panel aluminum and glass door system, including aluminum frame, tracks, threshold, sliding panels, swing panels, sliding L frame panels with incorporated swing doors, stacking bays, sliding/swinging and locking hardware, weather stripping, glass and glazing; designed to provide an opening glass wall or storefront, with sizes and configurations as shown on drawings and specified herein, with the HSW50 NanaWall®, the Thermally Broken Aluminum Framed Individual Panel Sliding System as supplied by NanaWall Systems, Inc.

1.02 References

- A. American Architectural Manufacturers Association (AAMA):
 - 1. AAMA 611.98, Voluntary Specification for Anodized Architectural Aluminum.
 - 2. AAMA 2603.02, Voluntary Specifications, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels.
 - 3. AAMA 1303.5, Voluntary Specifications for Forced Entry Resistant Aluminum Sliding Glass Doors.
- B. American National Standards Institute (ANSI):
 - 1. ANSI Z97.1, Safety Performance Specifications and Methods of Test for Safety Glazing Material Used In Buildings.
- C. American Society for Testing and Materials (ASTM):
 - 1. ASTM E 283, Test Method for Rate of Air Leakage through Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
 - 2. ASTM E 330, Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
 - 3. ASTM E 547, Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Cyclic Static Air Pressure Differential.
- D. Consumer Product Safety Commission (CPSC):
 - 1. CPSC 16CFR-1201, Safety Standard for Architectural Glazing Materials.
- E. National Fenestration Rating Council (NFRC):
 - 1. NFRC 100, Procedure for Determining Fenestration Product Thermal Materials.
 - 2. NFRC 200, Procedure for Determining Solar Heat Gain Coefficient.

1.03 Submittals

- A. Shop Drawings: Indicate dimensioning, configuration, swing panels, stacking bay layout, typical head jamb, side jambs and sill details, type of glazing material and handle height.
- B. Product Data: Manufacturer's literature including independently tested data listing performance criteria and Owner's Manual with installation instructions.
- C. Contract Closeout Submittal: Submit Owner's Manual from manufacturer. Identify with project name, location and completion date, and type and size of unit installed.

1.04 Quality Assurance

A. Manufacturer: Provide complete, precision built, engineered, pre-fitted unit by a single source manufacturer with at least 15 years experience in the sale of folding/sliding door systems for large openings in the North American market.

B. Performance Requirements: Unit to comply with applicable manufacturer's independently certified testing results. Testing results include air infiltration in accordance with ASTM E 283, water penetration in accordance with ASTM E 547, structural loading in accordance with ASTM E 330, and forced entry in accordance with AAMA 1303.5 and CAWM 300-96.

C. Thermal Performance: Unit to comply with the U value, simulated in accordance with NFRC 100, shown in manufacturer's latest published data for the glazing specified.

D. Solar Heat Gain Coefficient: Unit to comply with the solar heat gain coefficient, simulated in accordance with NFRC 200, shown in manufacturer's latest published data for the glazing specified.

E. Installer Qualifications: Installer experienced in the installation of manufacturer's products or other similar products for large openings. Installer to provide reference list of at least 3 projects of similar scale and complexity successfully completed in the last 3 years. Provide project names, locations, completion dates, names and telephone numbers of General Contractor and Owner's contact person.

1.05 Warranty

A. Provide manufacturer's standard warranty against defects in materials and workmanship.

B. Warranty Period: Ten years for roller and for seal failure of insulated glass supplied. For all other components, one year (two years if unit is installed by manufacturer's certified trained installer) from date of delivery by manufacturer.

1.06 Site Conditions, Delivery, Storage and Handling

A. In addition to general delivery, storage and handling requirements specified in Section 01600, comply with the following:

1. Deliver materials to job site in sealed, unopened cartons or crates. Protect units from damage. Store material under cover, protected from weather and construction activities.

Part 2 – Products

2.01 Supplier

A. NANA WALL SYSTEMS, INC.
707 Redwood Highway, Mill Valley, California 94941
Toll Free (800) 873-5673
Telephone: (415) 383-3148
Fax: (415) 383-0312
Website: www.nanawall.com
Email: info@nanawallsystems.com

2.02 Materials

A. Frame, Panels, and Stacking Bays: From manufacturer's standard profiles, provide head jamb, side jambs, sliding panels, swing panels, sliding L frame panels with incorporated swing panels,

and stacking bays with dimensions shown on drawings. Provide clear anodized low profile saddle sill.

1. Aluminum: Extrusions with nominal thickness of .098" (2.5mm). Alloy specified as AlMgSi 0.5 with strength rated as 6063-T5 or F-22 (European standard). Panels thermally broken with 9/16" (14 mm) Polyamide plastic reinforced with glass fibers. Head jamb thermally broken with cover plates on both sides.

2. Finish: Powder coated conforming to AAMA 2603.02 white, RAL anodized conforming to AAMA 611.98, clear, E6 EV1.

B. Glass: glass to be acquired and glazed separately in accordance with manufacturer's instructions only. Exact glass dimensions to be provided by manufacturer. ASTM C 1048 Kind FT, select glazing quality float glass; fully tempered safety glass complying with applicable codes. Provide EPDM gaskets and extruded aluminum snap-in glazing bead for dry glazing per manufacturer's instructions. Stops to provide for total glass thickness of 15/16" (24 mm) All glass to comply with safety glazing requirements of ANSI Z97.1 and CPSC 16CFR 1201.

C. Locking Hardware and Handles: On the main entry panel for models with a swing panel less than 7'0" high, provide manufacturer's standard nylon lever handles on the inside and outside, a lock set with one point lockable latch, and separate dead bolt. Turn of key or thumb turn operates lock and depression of handles withdraws latch]

1. Powder coated flat handle finish: match panel profile.
2. Nylon handle color: closest match to flat handle color from available colors.
3. Standard locking rods capped by Polyamide at top and bottom tracks.
4. Provide handle height centered at 41 3/8".

D. Sliding & Swinging Hardware: Provide manufacturer's standard hardware.

1. For each sliding panel, provide 2 two wheeled, toughened Polyamide covered stainless steel uni-directional sliding door carriers. Carrying capacity of each carrier to be 220 lbs.
2. Provide on all four corners of sliding panels, sliding L frame panels and swing panels, thermally broken, die cast zinc multi-functional corner fittings with carrier connectors, male and female locking receptacles, hinges and hinge pins as required. Finish: Powder coated, closest match to finish of frame and panels.
3. Adjustment: Provide system capable of specified amount of adjustments without removing panels from tracks.

E. Other Components:

2. Weather stripping: Provide manufacturer's standard double layer APTK at both the inner and outer edge of door panels or on frame for vertical sealing between panels and between panels and frame. Provide brush seals with flexible plastic web for all horizontal sealing.
3. Provide machine screws for connecting frame components.

2.03 Fabrication

A. Use extruded aluminum frame and panel profiles, corner connectors and hinges, sliding and folding hardware, locking hardware and handles, glass and glazing and weather stripping as specified herein to make a folding glass wall. Factory pre-assemble as is standard for manufacturer and ship with all components and installation instructions.

B. Sizes and Configurations: See drawings for selected number and size of panels, location of swing panels, and location of tracks and stacking bays.

2.04 Accessories

Part 3 - Execution

3.01 Erection

A. Because of the large dimensions involved and the weight and movement of the panels, verify the structural integrity of the header such that the maximum deflection with the live load is limited to be the lesser of $1/720$ of the span and $1/4"$. Similar structural support is needed for the stacking bay(s) and any upper track leading to it.

B. Examine surfaces of openings and verify dimensions; verify rough openings are level, plumb, and square, with no unevenness, bowing, or bumps on floor.

3.02 Installation

A. Install frame in accordance with manufacturer's recommendations and installation instructions. Properly flash and waterproof around the perimeter of the opening.

B. Installer to provide anchorage devices and to securely and rigidly fit frame in place, absolutely level, straight, plumb and square. Install frame in proper elevation, plane and location, and in proper alignment with other work.

C. If necessary, provide drain connections from lower track.

D. Install panels, handles and lock set in accordance with manufacturer's recommendations and installation instructions.

E. If necessary, adjust hardware for proper operation.