



BLADE #1 Horizontal Aluminum Louver System

Impact-Rated Architectural Louver for High & Non-High Velocity Hurricane Zones

A welded 5052-H32 aluminum horizontal blade louver engineered for exterior wall openings. Verified for large-missile impact, cyclic wind pressure, and uniform static load in accordance with the 2023 Eighth Edition of the Florida Building Code. Suitable for direct-mount and trapped-frame installations across concrete, masonry, wood, steel, and aluminum substrates.

150 psf MAX DESIGN PRESSURE (ASD)	10'-0" MAX PANEL WIDTH	8'-3"+ MAX PANEL HEIGHT	9 lb LARGE-MISSILE RATED
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1 PRODUCT IDENTIFICATION

Product Name	Blade #1 Horizontal Aluminum Louver	Category	Structural Components
Sub-Category	New Technology Product	Blade Spacing	4" on center
Code Edition	2023 FBC (8th Edition)	Wind Load Standard	ASCE 7-22
HVHZ Approved	Yes — H.V.H.Z. & N.H.V.H.Z.	Evaluation Method	Rule 61G20-3, Method 1D

2 PERFORMANCE RATINGS

PERFORMANCE CRITERION	STANDARD / PROTOCOL	RATING
Large Missile Impact	TAS 201 / FBC 1626 & 1609.1.2 / AMCA 540	9 lb 2"x4" @ 50 ft/sec
Cyclic Wind Loading	TAS 203 / FBC 1609.1.2	Pass
Uniform Static Load	TAS 202	Pass
Design Wind Pressure (ASD)	FBC 1620 & 1609 / ASCE 7-22	Up to ±150.0 psf

Test reports by QAI Laboratories (QA-1162a, QA-1162b, QA-1162c), dated 10/13/2025, signed & sealed by IdaLmis Ortega, P.E.

3 MATERIALS & CONSTRUCTION

Sheet Metal Alloy	5052-H32 Aluminum	Pop Rivets	3/16"Ø · 2024-T3 (Series 9444)
Screws / Fasteners	SS 304/316 · 50 ksi yield, 90 ksi tensile	Carbon Steel Option	Corrosion-resistant, DIN 50018
Welding	AWS D1.2 · ER-5356 electrodes	Blade Corners	Welded

Dissimilar metals: Aluminum members in contact with dissimilar materials comply with Section III-6 of the 2020 Aluminum Design Manual. The louver shall only be installed where the room behind drains penetrating water or houses water-resistant equipment.



4 COMPONENTS (BILL OF MATERIALS)

1 Blade #1 5052-H32 alloy, welded blade element	2 Channel Jamb 1" × 4" × 1" × 0.090" thk.
3 Mounting Angle 1.5" × 2" × 0.125" thk. (trapped option)	4 Blade Brace Angle 0.5" × 1.5" × 1.5" × 0.125" thk.
7 Pop Rivet 3/16"Ø large-flange, 2024-T3	8 Stiffener Connector 1½" long, max spacing 24" O.C.
9 Sill 5052-H32 formed channel	10 Head Includes rear plate
11 Drip Pan 0.050" thk. alum. sill pan w/ end dam	

5 SCHEDULE #1 — MAX PANEL WIDTH BY PRESSURE

A.S.D. DESIGN PRESSURE	MAX PANEL WIDTH (L)
±55.0 psf or less	10'-0"
>55.0 to 65.0 psf	9'-0"
>65.0 to 75.0 psf	8'-6"
>75.0 to 100.0 psf	7'-10"
>100.0 to 150.0 psf	6'-8"

Valid for all substrates at jams. Panel height range: 1'-7-7/16" (min) to 8'-3-7/16" (max). Min panel width 1'-0".

6 SCHEDULE #2 — MAX ANCHOR SPACING BY SUBSTRATE

A.S.D. PRESSURE	CONCRETE / ALUM. / STEEL	GROUTED CONCRETE BLOCK	WOOD
±55.0 psf or less	8" O.C.	8" O.C.	8" O.C.
>55.0 to 65.0 psf	8" O.C.	8" O.C.	8" O.C.
>65.0 to 75.0 psf	8" O.C.	8" O.C.	8" O.C.
>75.0 to 100.0 psf	8" O.C.	8" O.C.	4" O.C.
>100.0 to 150.0 psf	8" O.C.	8" O.C.	4" O.C.

Anchor spacing applies at the maximum panel width per Schedule #1 for the corresponding pressure.

7 ANCHOR SCHEDULE (MIN. EMBEDMENT & EDGE DISTANCE)

ANCHOR TYPE	MFR.	DIA.	EMB. CONCRETE	EMB. GR. BLOCK	EDGE DIST. CONC.
Screw-Bolt+	DeWalt	1/4"	1⅝"	1⅝"	2½"
Tapcon	ITW/Buildex	1/4"	1¾"	1¼"	2½"
Tek-Screws	ITW/Buildex	1/4"-14	—	Full emb. +3 threads	3/4" (steel)

Concrete f_c = 3,000 psi min. Grouted block: C-90 unit, f_c = 1.5 ksi. Tapcon wood embedment 1½", edge distance 1".

8 LIMITATIONS & CONDITIONS OF USE

- May be installed within High Velocity Hurricane Zones (FBC §202) and outside of them.
- Approved substrates only: poured concrete, grouted concrete block, wood frame, and steel or aluminum.
- Install strictly per details on sheets 3, 4 & 6 of Drawing No. 24-122; anchors per General Note 5 & Schedule #2.
- This Product Evaluation Document is generic; site-specific projects must be prepared and sealed by a Florida-registered Engineer or Architect of Record. The document is invalid if modified.
- A product manufacturer's label per FBC §1703.5 shall be placed at every opening.

EVALUATION BY

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COMPLIANCE

2023 Florida Building Code, 8th Edition
FBC §§1604, 1609, 1616, 1620, 1626 · AMCA 540

PERMITTING NOTE

For permit use in the State of Florida
Report subject to revision on Building Code change